

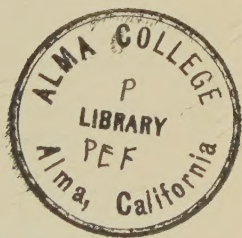
Palestine exploration quarterly

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FOR 1931.



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THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

Died.

On the 13th October, 1930,

DR. H. R. H. HALL,

Chairman of the Executive Committee.

The sudden death of Dr. Hall, Keeper of Egyptian and Assyrian Antiquities at the British Museum, and for eight years Chairman of the Executive Committee of the Palestine Exploration Fund, came as a great and wholly unexpected shock. Dr. Hall had so wide and deep an acquaintance with the archæology of the Ancient East, and was so closely in touch with the work that is being done out there, that his loss is irreparable. An account of his life-work and an appreciation of his services on behalf of the Fund will be found on another page. (See p. 9.)

At a meeting of the Executive Committee, held November 12, Colonel Sir Charles Close, K.B.E., C.B., C.M.G., F.R.S., R.E., who has just vacated the Presidency of the Royal Geographical Society, was elected Chairman of the P.E.F. in succession to Dr. H. R. Hall. Sir Charles Close has been Treasurer of the Society since the death of Mr. Morrison and has for several years taken an active part in its affairs and we welcome the appointment as one entirely suitable. There has been a close association between Officers of the Royal Engineers and the P.E.F. for many years and our new Chairman is carrying on a tradition of long standing.

In succession to Sir Charles's post in the Hon. Treasurership the Committee decided to revert to the old precedent of having joint treasurers, and Robert L. Mond, Esq., LL.D., M.A., F.R.S.Ed., J.P., and Brig.-Gen. E. M. Paul, C.B., C.B.E., R.E., have agreed to accept the appointments. Both our joint-treasurers have an intimate

knowledge of Palestine and have served the Society as members of the Executive Committee for some years.

At the same meeting it was decided to co-operate, together with the British School of Archæology in Jerusalem, the Hebrew University and the British Academy, in the excavations initiated by the University of Harvard at the site of Ancient Samaria. A full account of the proposals will be seen in the report of the Annual Meeting of the British School (p. 28). British subscribers are, it is proposed, to raise a substantial sum—a thousand a year is suggested—towards this important excavation. Mr. Crowfoot will be the Director of the work and periodical reports of its progress will appear regularly in the Quarterly Statement during the three years of its continuance. Members of the Fund wishing to help may do so, either by doubling their annual subscriptions or by making special donations for the Samaria Excavations. All contributions may be sent addressed to the Secretary of the P.E.F., 2, Hinde Street, Manchester Square, W.1.

A meeting of the Executive Committee was held at 2, Hinde Street, on December 16, Col. Sir Charles Close presiding. It was decided to enter heartily into the agreement with regard to the excavation of Samaria and to make all possible effort to raise the Fund's quota of money towards this work. A proposal was also favourably considered of publishing a new and thoroughly up-to-date large scale map of Palestine. Sir Frederic Kenyon, G.B.E., F.B.A., and the Right Rev. the Bishop of Rochester (Dr. Linton Smith) have accepted invitations to join the Executive Committee. In view of the probability of increased business during 1931, the Committee decided to meet on January 27, February 24, March 24, May 19, and June 16, at 3.15, and at special meetings besides, if necessary.

The author of the article on the "Discoveries at Pekiin," in the last issue (*Q.S.*, p. 210) was Mr. I. Ben-Zevie, and not Ben-Zevil, as is printed there and in the Indexes.

The annual Schweich Lectures under the auspices of the British Academy were given this year by Dr. E. L. Sukenik, Archæologist

to the Hebrew University, Jerusalem. His subject was "Ancient Synagogues in Palestine and Greece."

He maintained that, with the exception of the Theodotus Synagogue at Jerusalem, none dated earlier than the third century A.D., based on archaeological evidence and comparison with contemporary architecture in Syria. Conder and Watzinger stated that they were built by Roman Emperors for the Jews, but there was no epigraphical evidence, and he was entirely opposed to this view. Abundance of human and animal figures showed that at that time the Jews had no objection to such figures for purposes of decoration. In later times there was some kind of iconoclastic movement among the Jews, the result of which was the mutilation of all the figures. It is quite possible that this movement was divided into two periods; the first when they objected only to figures in relief, but later, even these were not tolerated, and the result of this was to be seen in the mutilation of the mosaic floor at Ain Duk, near Jericho.

The Eighteenth International Oriental Congress will be held in Leiden, September 7-12, 1931. The Congress Committee have sent out this, their first intimation, and request that it be made known, so that the co-operation of all interested can be secured, and the Congress made a success.

Annual No. 5 (see advertisement on back cover of *Quarterly Statement*) contains Mr. Crowfoot's report on his work at Ophel and the Tyropoeon Valley during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the building and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letterpress and an index. Price 31s. 6d. to non-members.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with

the Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Miss C. M. Finn has kindly presented 500 copies of *Palestine Peasantry: Notes on their Clans, Warfare, Religion and Laws*, being a reprint of the work of her mother, the late Mrs. E. A. Finn, who, with Consul Finn, lived in Palestine for over seventeen years, and devoted much time to a study of the social divisions and conditions of the inhabitants some fifty or more years ago, and argues that the modern Arab Fellahin are descendants of the ancient Canaanites. This interesting little book of 95 pages is on sale at 7d. per copy, post free.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

Mr. H. C. Luke's translation and annotation of a 16th century MS., under the title of *A Spanish Franciscan's Narrative of a Journey to the Holy Land*, is on sale at 4s. bound in cloth, and 2s. 6d. in paper covers.

The new plan of Jerusalem on a scale of approximately 1 : 5,000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5s. ; mounted on cotton and folded to size 8 × 6 inches, price 9s. The latter form is the more convenient, as owing to its size the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains some duplicate volumes. They may be purchased, and a list, with

the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found on p. 6.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions from:—

				£	s.	d.
Miss A. M. Parker	...	...	...	5	0	0
Rev. W. Ewing, D.D.	...	...	...	1	1	0

A list of the members who have generously responded to the appeal which is being made for increased subscriptions will be published in the next number.

The *Annual Report*, with Accounts and List of Subscriptions for 1929, was issued to Members of the P.E.F. with the April number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an Index, 1869-1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £15 15s. Subscriber's price £14 14s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5 except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund (see address on cover).

The Committee have to acknowledge with thanks the following :—

The Near East and India, November 7. Summary of Mr. L. Binyon's lecture on Persian painting.

The Expository Times, November. The Passage of the Red Sea, by H. H. Scullard. Recent biblical archæology, by Rev. J. W. Jack. December : the purpose of the book of Esther, by Prof. A. E. Morris.

The Religion of Ancient Palestine in the Light of Archæology. The Schweich Lectures of the British Academy, 1925. By S. A. Cook.

The Antiquaries Journal, October. Excavations at Ur, 1929-30, by C. Leonard Woolley.

Journal of the Royal Anthropological Institute. Vol. lx. : megaliths and beakers, by H. J. Fleure and H. J. E. Peake.

Annals of Archæology and Anthropology. xvii, 3-4. Some archaic statuettes and a study of early Sumerian dress, by E. D. Van Buren ; an unknown script from Egypt, by H. R. Hall.

The Scottish Geographical Magazine.

Transactions of the Glasgow University Oriental Society. v, 1923-28.

Studies in the Psalms, by Samuel Daiches, Ph.D. Jews' College Publications, No. 12.

The New Judaea.

The Four Canaanite Temples of Beth-Shan. Vol. ii, part 2, the Pottery. By G. M. Fitzgerald. (Publications of the Palestine Section of the Museum of the University of Pennsylvania.)

Annual of the American Schools of Oriental Research, x. New Kirkuk documents, by E. A. Speiser ; comparative list of signs in the so-called Indo-Sumerian Seals, by G. A. Barton.

Bulletin of the American Schools of Oriental Research, October. Third campaign at Tell Beit Mirsim, by Prof. Albright.

Journal of the American Oriental Society.

Jewish Quarterly Review, July-October. Flavius Josephus on Jesus, called The Christ ; by R. Eisler ; review of the P. E. F. Annual for 1923-5, by W. F. Albright.

Bulletin of the Metropolitan Museum of Art.

The Homiletic Review.

Syria, Revue d'Art Oriental et d'Archéologie, xi, 2 : the Assyrian paintings at Til-Barsib, by Fr. Thureau-Dangin ; the account of the fourth campaign at the ruins of Mishrifeh-Katna, by Count du Mesnil du

Buisson; M. Pierre Montet's fourth campaign at Byblus, by R. Dussaud.

Revue Biblique, July. A new archaic Phœnician inscription, by M. Dunand; an epigraphical discovery at Beth-Shemesh, by Elihu Grant; chronology of the ruins of Jericho, by L.-H. Vincent. October: the Babylonian deluge, by P. Dhorme; a new Semitic alphabet, by the same; Palmyrene funerary texts, by Cantineau; an Acheulian—Mousterian industry in Palestine, by Duvignau; the mines of Sinai, by A. Barrois.

Journal Asiatique, October-December, 1929. The bird in Job xxxix, 13, by F. Nau; the word *labrys*, by G. Dumézil.

Qoubeibeh Emmaus Evangelique. By R. P. Prosper-M. Viand. Jerusalem, 1930.

Bollettino dell' Associazione Internazionale per gli studi Mediterranei, August: the Italian mission in Amman, by R. Bartoccini.

Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung. liv.

Zeitschrift des Deutschen Palästina-Vereins, liii, 3: the significance of scarabs for Palestinian archæology, by M. Pieper; Eusebius on Gibeon and Beeroth, by G. Beyer; Hebrew inscriptions in the Haram, by L. A. Meyer; 'Atroth-Addar, by J. Hempel; remains of a Byzantine basilica in Jerusalem, by A. E. Mader; a necropolis at Bethlehem in Galilee, by Sturmer; political, economic and meteorological reports

Archäologische Institut des Deutschen Reiches: Bericht über die Hundertjahrfeier, 21-25 April, 1929.

Litterae Orientales (Harrassowitz, Leipzig). Modern Russian publications in the sphere of Oriental studies, by M. Dostojewski.

Orientalistische Literaturzeitung, August-September. Bauer on Noth's Israelite nomenclature. October: review by L. Leuze of Kahrstedt's Syrian territories in the Hellenistic age, and by Mlaker of Willrich's House of Herod. November: chariot warfare in old oriental art, by L. A. Moortgat.

Le Monde Oriental, xxiii: the Sign of Kain and the Kenites, by R. Eisler. Numerous reports and reviews.

Archiv Orientalni: *Journal of the Czechoslovak Oriental Institute* (Prague) June. Cappadocian pottery, by A. Zakkarov; two Anatolian monuments, by the editor, B. Hrozny.

The Historical Flood. By Lt.-Com. Victor L. Trumper. Bangalore, 1930. *The Hebrew University, Jerusalem*, 1929-30.

Bible Lands, October. A pre-Lusignan Byzantine chapel, Kyrenia Castle, Cyprus, by W. D. Caröe; well-known trees and shrubs of Palestine and Syria (*cont.*), by A. W.

La Revue de l'Academie Arabe (Damascus).

Al-Mashrik.

Zion.

Legends of Palestine, by Zev Vilnay. (Hebrew.) Hasefer Agency, 14 Bury Street, W.C.1.

From Mr. Pilcher : *Journal of the Royal Asiatic Society*.

See also below p. 48.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books :—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864) ; published about 1874.

K. von Raumer, *Der Zug der Israliten*. (Leipzig, 1837).

Lagarde, *Onomastica Sacra* (1887).

Le Strange Palestine Under the Moslems (1890).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson.

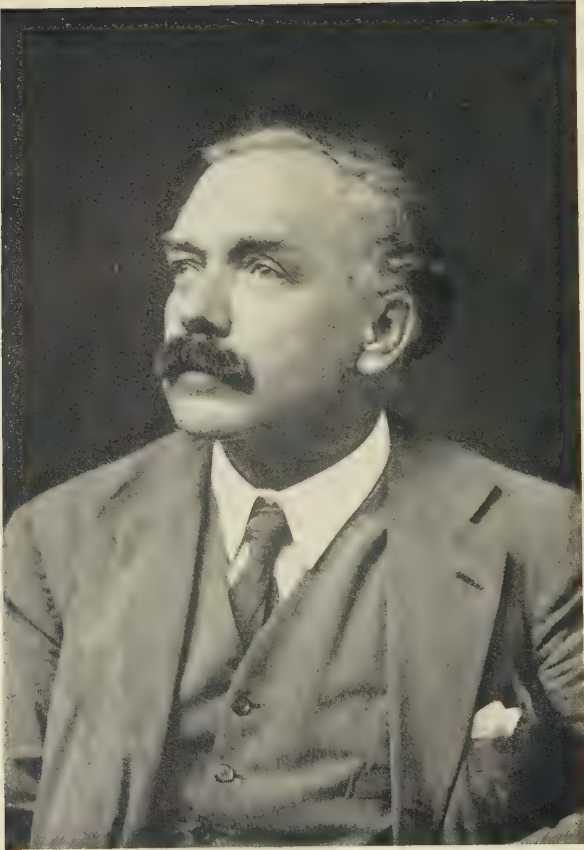
Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath* already in the Library ; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

FORM OF BEQUEST TO THE PALESTINE EXPLORATION FUND.

I give to the Palestine Exploration Fund, London, the sum of——— to be applied towards the General Work of the Fund ; and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

NOTE.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*



DR. H. R. H. HALL.

THE LATE DR. HARRY REGINALD HOLLAND HALL.

THE sudden and unexpected death of Dr. Hall is a loss to the Palestine Exploration Fund impossible to measure. He was elected Chairman of the Executive Committee—in succession to Dr. Hogarth—at the Annual Meeting in 1922, and was therefore the most responsible and important officer of the Society for over 8 years. He spoke at all the Annual Meetings and gave formal addresses in 1923 and 1925. He presided at the Annual General Meeting on two occasions and each year he prepared and presented the Annual Report.

It will be seen that the Society owe a very great debt to him for important services, quite apart from his active duties at the meetings of the Executive Committee. The Palestine Exploration Fund has been fortunate in having over so comparatively long a period a Chairman with such a high reputation in the world of archæology.

He was the son of the artist, Mr. Sydney Hall, M.V.O., and was born September 30, 1873. He was educated at Merchant Taylors' School and at St. John's College, Oxford, which recently elected him to an Honorary Fellowship. He was a man of many sympathies, and inherited from his father his artistic sympathies, his special interest being in the art of the last four centuries, and especially Dutch paintings of ships. His archæological and Egyptological interests manifested themselves even in boyhood; and in 1896 he was successful in obtaining a post in the Department of Egyptian and Assyrian antiquities in the British Museum. He was appointed Assistant-Keeper in 1919, and on the retirement of Sir Ernest Wallis Budge five years later became Keeper.

Dr. Hall was a D.Litt. of Oxford, and a Fellow of the British Academy; and besides being Chairman of the P.E.F., was on the Council of the Royal Asiatic Society and of the Hellenic Society. He travelled extensively in Greece and the Near East, and during the war rendered valuable services, especially in Mesopotamia, for which he was twice mentioned and received the M.B.E.

He took part in the excavations at Deir et-Bahri, 1903-7, and Abydos, 1910, 1925, and directed those at M. Tell et Obeid, etc., in Babylonia. Of his numerous works the first was *The Oldest*

Civilisation of Greece (1901), and the latest *The Civilisation of Greece in the Bronze Age* (1928). Since his death a volume on the excavations at Ur has appeared. Here and elsewhere he showed himself a scholar of the first rank. Upon the archæological problems of the Near East he was one of the foremost experts; and the question of the identification of the Philistines he made in a special way his own. Dr. Hall and the late Dr. Leonard King collaborated successfully in work upon the history and archæology of Egypt and south-west Asia, and besides several chapters on Egyptian history and on the art of the Near East for the *Cambridge Ancient History*, he was the author of an *Ancient History of the Near East*, an admirable introductory volume which has run into seven editions.

"In the British Museum," writes *The Times*, "he was one of the most stimulating and energetic figures, and he was frequently the representative of the Trustees or of the Government at international congress. His fatal illness followed a series of rapid travel over the Continent in this service, for he had been representing the British Government at the Semaine Egyptologique in Brussels and the Museum at a series of German Congresses, for which he traversed half that country in seven days."

Dr. Hall was well-known to many for his vigorous personality. He was, as *The Daily Telegraph* says, "no mere dry-as-dust archæologist, but a real human being of surprising energy, to whom the people of past civilisations in Egypt, Babylon and Assyria were human like himself." In fact, his numerous writings, his organising skill in the British Museum and elsewhere, and his robust enthusiasm make Dr. Hall one of the outstanding men of his time, and there are many who like the Editor of the Q.S. (who can look back upon an acquaintance of over thirty years) can testify to his excellent qualities as a scholar and a man.

Dr. E. W. G. Masterman writes:—I must, as Honorary Secretary, add a few words of personal tribute. What it has meant to me to have one like Dr. Hall to consult at all times during these years it is impossible for me to describe. We have both been very busy men, and the work of the P.E.F. might well be thought to demand a much larger amount of time to be devoted to it by its Hon. Officers than it has been possible for us to give. What has been done has only been possible because I have been able at all times—by telephone, by letter, or by personal meetings—to seek the wise council of Dr. Hall. His standing in the world of archæology, together with his

important public position has in many times enabled us to get speedily settled difficulties and practical problems which otherwise might have consumed much of the Committee's time and quite possibly have remained unsolved. Above all, his personal kindness, his patience in thrashing out all questions of policy and his wise and decisive views have made my eight years of close association with him a time which I shall ever recall with gratitude.

NEW LIGHT ON THE EVOLUTION OF CANAANITE
TEMPLES AS EXEMPLIFIED BY RESTORATIONS OF THE
SANCTUARIES FOUND AT BETH-SHAN.

BY ALAN ROWE, *Field Director, Egypt Expedition, The University
Museum, University of Pennsylvania (Palestine Expedition, 1925-29),*

AND

REV. PÈRE L. H. VINCENT, O.P., *École biblique et archéologique
française, Jerusalem.*

It was not until the more or less recent discoveries of Canaanite temples were made at Beth-Shan, the modern Beisân, by the University Museum, that we could trace the development of the temple proper from the more ancient type of sanctuary, or "high place."¹ And although all these temples, when excavated, were in a ruined state, yet fortunately we have been enabled, from a study both of various types of architectural remains, such as the brick walls, stone capitals, column bases, architraves, etc., found on the site, and of the plans of more or less analogous and contemporary buildings known in Egypt, to attempt what we believe to be true restorations of the four Canaanite sanctuaries erected at Beth-Shan during the reigns of Amenophis III (Fig. 2), Seti I (Fig. 3), and Rameses II (Figs. 4, 5). We have, however, not attempted to restore a fifth and oldest of all the sanctuaries so far unearthed on the site, namely, that erected during the time of Thothmes III (Fig. 1), as there is at present not sufficient evidence available for such a reconstruction.

All our restorations² are here published for the first time and are, we venture to assert, of the very highest importance for the study of the ancient civilisation as well as of the ancient religion of the Land of Canaan. We think we may fairly claim that the restorations are not of the "fantastic" order, for in their essential features they do not go beyond the evidence of the existing structural remains. Moreover we feel fairly confident in saying that there is

¹ Some details of these temples have already appeared in *The Illustrated London News*.

² Drawn by Mr. I. Reich, draughtsman of the Expedition.

probably hardly a single instance in the drawings where there would not be at hand a good example for supplying the details indicated. Many of the features of the Thothmes III temple are not unlike some of those of the ideal temple described by the prophet Ezekiel (sixth century, B.C.)—*cf.* Ezekiel xl, and it must be assumed that there was not a great architectural difference between Israelitish temples of the type referred to by the prophet and temples in use by the non-Israelitish inhabitants, both in the sixth century B.C., and in earlier times.

TEMPLE OF THOTHMES III, XVIIITH DYNASTY, 1501-1447 B.C.

Our sketch of the temple of Thothmes III shows the building exactly as it appeared when unearthed (Fig. 1). This most interesting and important sanctuary is really a combination of a temple proper with altars, etc., and a "high place," the latter being generally a crudely-walled sanctuary open to the sky, containing sacred stone columns (*mazzeboth*) representing the god and sacred conventional trees (*asherim*) representing the goddess, and also some other cultural equipment. Both the "temple"-portion and the "high-place"-portion are clearly defined in the sketch, the former in the centre (Fig. 1, No. 2), and the latter near the right foreground (Fig. 1, No. 9). Whether the "temple" was built against the "high place," or whether the latter merely preserved the characteristics of a previous (and immediately preceding [?]) sacred building, it is as yet impossible to say. But anyhow, we appear to have in the Thothmes III sanctuary the dividing line between the older and the newer type of building. Moreover, next to the *mazzebah*, or *Canaanite* emblem of the deity worshipped in the sanctuary (Fig. 1, No. 9), was actually found the *Egyptian* representation of the deity—a stela bearing the name and figure of Mekal, who is called "the lord of Beth-Shan," thus giving us for the first time the transition between the representation of a god in the form of a column to the representation of the same god in human form.

The various parts of the Thothmes III temple as numbered in Fig. 1 are as follows:—

(1) *Great courtyard*, with three tables for cutting up carcases (?), a pole or gallows for suspending the carcase of the sacrificed animal (?), and a flight of steps leading up to the great corridor (A-B).

(2). *Inner sanctuary* with two altars, the southern one for meat

offerings³, and the northern one—which incidentally contains a stone laver for liquid offerings—for various cult objects, such as pottery vessels, etc. Both altars in this sanctuary are on the one floor level, while in the later temples of Amenophis III and Seti I, the northern altar is on a higher floor level than the one in front of it. It seems probable that the part of the sanctuary containing the altars was roofed over, but no direct evidence of this was found. Exactly how much of the rest of the temple was covered in, it is impossible to decide.

(3) *Sacrificial-altar room*. The altar itself, with channel and receptacle for the blood, is just near the door leading from the courtyard to the inner sanctuary. Near the altar were lying the two horns of a bull that had been sacrificed upon it, and also a sacrificial dagger.

(4) *Room with fireplace* of stone for cooking sacrifices. A quantity of ashes, etc., came from the fireplace.

(5) *Well*, 42 feet deep, for supplying water to the temple.

(5) *Great southern corridor*, with

(6) *A large stepped altar* in its western end ; behind the altar is

(8) *A small room* with a low bench on its north and east sides ; the use of the room is not yet clear.

(9) The *mazzebah*, or Canaanite emblem of the god Mekal, who was worshipped in the temple. Before the column is a small libation cup. The Egyptian stela portraying the god was found a few feet from the west side of the column.

(10) *Room north of inner sanctuary* ; the exact significance of this room is not yet certain, but perhaps it was dedicated to the local goddess, for the socket found in the centre of the inner wall at the east, which wall, incidentally, looks like the base-portion of a shrine, may have contained the base of a wooden asherah, or sacred conventional tree. The curious rectangular pedestals of brick on the top of the plaster-covered rubble walls in this room present a problem to us ; either they are intentional, in which case we may suppose the spaces between them to have been filled with horizontal wooden beams or even stone blocks for the purpose of strengthening the lower courses of brickwork, or they were made accidentally in ancient times when the bricks were robbed from the walls. It is

³ Actual skeletal remains were found on the altar ; they belonged to a young bull.

just possible, but hardly probable, however, that the upper parts of the walls above the pedestals consisted of screens of wood resting on the suggested horizontal strengthening beams.

In the temple were found beautiful pottery cult objects and jewellery, and a large bronze pendant figuring a lion leaping on a bull. This pendant was probably suspended from the neck of the bull to be sacrificed. From the same place also came one of the finest monuments of its kind yet found in Palestine, a basalt panel showing the figures of a lion and a dog, which was published in the *Quarterly Statement* April, 1929, plate xiv.

TEMPLE OF AMENOPHIS III, XVIIITH DYNASTY, 1411-1375 B.C.

The temple of Amenophis III, like probably the older temple of Thothmes III, was roofed in over the portions containing the two altars, as shown in our sketch (Fig. 2). The building is very similar in plan to certain tomb-chapels, shrines in private houses, and a shrine in a river temple, all of the reign of Amenophis IV (Akhenaten), the successor of Amenophis III, found at Tell el-Amarna in Egypt: and it seems not only quite possible, but highly probable, that the plan of these el-Amarna buildings was taken from that of certain buildings, like the Beth-Shan Amenophis III temple, in Syria and Palestine, for the close resemblance between them all is surely too close to be accidental. Further, we must remember the close relationship that existed between the royal houses of Egypt and Western Asia about this time. A Phœnician monolithic shrine at Marathus, in Syria, bears some resemblance to our temple; see Rawlinson, *History of Phœnicia*, p. 139. An Egyptian stela showing the figure of a goddess, perhaps "Ashtoreth of the Two Horns," came from the building we are now describing. The numbers in Fig. 2 refer to the following parts of the temple of Amenophis III:—

- (1) *Outer door*, leading into
- (2) *Ante-room*, a door in the north wall of which opens into
- (3) *A court* surrounded on three sides by a low bench and containing a rectangular altar and two columns for supporting the roof. The capitals, which are here restored after those actually found in the Seti I temple, are papyrus-shaped. Behind the altar is a flight of steps leading up to
- (4) *The shrine*, which contains an altar with a sloping top. The floor of this room was originally coloured a bright blue.

(5) *Storeroom* (?), with door leading off the court.

(6) *Aperture* for light and air.

Beneath the floor and the walls of this temple were discovered many amulets and rings bearing the name of Amenophis III, over forty Syro-Hittite cylinder seals, and a magnificent Hittite battle-axe of bronze, the best of its kind ever found.

TEMPLE OF SETI I, XIXTH DYNASTY, 1313-1292 B.C.

The temple of Seti I (Fig. 3) was built immediately over the temple of Amenophis III—of which it is to all intents and purposes a copy—which, in its turn, was built above the great temple of Thothmes III. Seti erected two great stelæ at Beth-Shan, one recording the delivery of the town from a league of foes across the Jordan, and another mentioning the Āpiru, a people whom some would connect with the Hebrews. The town is actually mentioned on a sphinx in his temple at Qurna in Egypt, it is likewise mentioned in an earlier list of town set up by Thothmes III at Karnak, and in a later list set up by Sheshonk I (945-924 B.C.) in the same temple. Below the Beth-Shan temple of Seti I were found many faience cartouches bearing the name of Rameses I, 1315-1314 B.C., the father and immediate predecessor of Seti. The main differences between the temple of Amenophis III and that of Seti I are that in the latter case a small entrance-court was added to the west of the ante-room, and in the inner court the flight of steps leading up to the shrine was brought out into the court itself. The descriptions of the parts of the Seti I temple indicated by numbers in Fig. 3 are as under:—

(1) *Entrance court* with columns and architrave above, leading into

(2) *Ante-room*, a door in the north wall of which opens into

(3) *A court* partly surrounded by a low bench, and containing a rectangular brick altar with a small stone block in front of it. Two papyrus-shaped columns support the roof. Behind the altar is a flight of steps leading up to

(4) *The shrine*, containing an altar similar to the one in the Amenophis temple.

(5) *Small niche*; use uncertain.

(6) *Door in the ante-room* opening into a store-room at the east—the latter room is not shown in the sketch, nor is the small room leading out from the south of the entrance court.

In the restoration, part of the roof has been removed, so as to show the upper altar.

Just to the north of the temple came a valuable treasure consisting of ingots and jewellery of silver, and an armlet of gold, the whole weighing 2 lb. 15 oz. avdp.

NORTHERN TEMPLE OF RAMESSES II, XIXTH DYNASTY, 1292-1225 B.C.

When the soldiers of Rameses II came to Beth-Shan they erected two temples over the area containing the temples of Thothmes III, Amenophis III, and Seti I, but whereas the axes of the older temples were from the south to north, the axes of the two new ones were laid from west to east, the altars being at the east end. The expedition actually found (inscribed on two door-jambs) the name and portrait of the builder of these two temples. His name was Rameses-wesr-khepesh, and he held the offices of overseer of soldiers, commander of Pharaoh's bowmen, royal scribe and great steward; his father was Thothmes, a fan-bearer at the right hand of the king, chief of the bowmen, and overseer of foreign countries (Fig. 6). The two temples were divided by a corridor and a great pylon gateway (Fig. 4, Nos. 4, 5). Entering from the east through the gateway, one would turn to the right to reach the northern temple, and to the left to reach the southern temple. Walking straight ahead, one would see a great triumphal stela referring to "Raamses," a city mentioned in *Exodus i*, 11, as having been built by the Israelites.

The northern temple of Rameses II consisted of a rectangular building with four columns in its interior supporting the roof, and, probably, a clerestory (Fig. 4). As the whole of the building was evidently roofed over, it was very necessary that a clerestory should have been provided, and the shape of the peculiar models of staged buildings found in the two temples perhaps support this view, for the upper stage in some of the models may well have been meant to represent the clerestories themselves. See Fig. 7, where ancient models of sacred staged buildings from Assur, Crete and Beth-Shan are shown. Fig. 8 shows a model of a somewhat similar building from Egypt, which is now in the Louvre. In the southern temple of Rameses II screen walls were found between the columns, and two such walls have been added in the restoration of the northern temple, so as to form a screen for the shrine. (As a matter of fact, the shrine and altars in both these temples had been destroyed, and are restored in our sketches more or less after those in the Seti I temple.)

The clerestory is not found in Egypt before the New Kingdom, the most magnificent example being in the great hypostyle hall at Karnak, complete by Rameses II. In later times it gave way almost entirely to the practice of using screen walls between the columns forming the first hypostyle hall of the temples : in the Ptolemaic and Roman temples no clerestories were used. On the other hand, as Messrs. Somers Clarke and Engelbach (*Ancient Egyptian Masonry*, p. 173) further point out, in their interesting remarks on this subject, screen walls antedate the clerestories, a good example being seen in the XVIIIth Dynasty temple at Medînet Habu. Our evidence indicates that both temples of Rameses II at Beth-Shan were in use until about the death of King Saul in 1020 B.C.

Just outside the door of the northern temple was found a statue of Rameses III, who came to the throne in 1198 B.C. About 1187 B.C. peoples of Aegean-Anatolian origin, comprising the Philistines and their allies, over-ran Palestine and Syria, but were repulsed by Rameses III. About 1020 B.C., and according to the Old Testament account contained in 1 Samuel xxxi., and 1 Chronicles x., the Philistines, who had taken possession of Beth-Shan not so very long after the death of Rameses III in 1167 B.C., defeated the Israelites upon the neighbouring Mount Gilboa, and fastened the head of Saul to the wall of the "temple of Dagon" (which we identify with the southern temple, Fig. 5), and placed his armour in the "house of Ashtaroth" (identified by us with the northern temple, Fig. 4). Subsequently the body of Saul, and the bodies of his three sons were taken by stealth from Beth-Shan and buried at Jabesh-Gilead, a place situated a little distance to the south-east of Beth-Shan on the other side of the Jordan. The reason for the kindly interest shown by the people of Jabesh-Gilead in the disposal of the body of Saul is explained by a reference to 1 Samuel, xi., 1-11, where we read that Saul, a little time previously, had delivered their town from Nahash, king of Ammon, a district to the south of the region in which Jabesh-Gilead lay. Somewhere about 1000 B.C. King David seems to have invaded Beth-Shan, when the two temples were then perhaps partly destroyed.

The following are the descriptions of the parts of the northern temple of Rameses II indicated by the numbers shown in Fig. 4 :—

- (1) *Entrance to temple.*

(2) *Inner part of temple*, containing four columns for supporting the roof and the clerestory. In this room was actually found a stela portraying the goddess Ashtoreth in the form of *Āntit*, the warrior-goddess. She is called the "Queen of heaven, and mistress of all the gods," and is of course to be identified with the goddess referred to under a similar title in the Old Testament. Compare, for example, Jeremiah xlv., 19, etc. As we know now that the temple was dedicated to a warrior-goddess it was surely quite fitting that Saul's armour should have been placed in it! Near the stela was lying part of a statue of a king (?), reminding one of a statue of King Merenptah in the Cairo Museum, and also of one of Khā-em-Wast, a son of Rameses II, in the British Museum.

(3) *Shrine with altars and steps*. Entirely destroyed, but here restored more or less after those in the Seti I temple.

(4) *Pylon gateway* between the two temples. This leads into

(5) *The corridor* between the buildings.

(6) *Part of Southern Temple*. The temple itself is shown in Fig. 5.

In our sketch, part of the northern wall, roof, and clerestory has been removed in order to show the interior.

SOUTHERN TEMPLE OF RAMESES II, XIXTH DYNASTY, 1292-1225 B.C.

The position of the southern temple of Rameses II (Fig. 5) in relation to the northern temple is clearly shown in Fig. 4. As we have already seen above, the former building is probably to be identified with the "temple of Dagon" of 1 Chronicles x., 10, in which the head of Saul was placed. That the building was dedicated to a god seems evident, for in it was found a magnificent cylinder seal portraying Rameses II and the god Resheph, here doubtless to be identified with "Mekal, the lord of Beth-Shan," so well known to us from the temple of Thothmes III. Near the west side of the temple, and in the corridor indicated in Fig. 5, No. 1, was discovered a stela belonging to a scribe named Amen-em-Ipt, an overseer of the two granaries of Pharaoh and a steward; his name recalls that of the scribe Amen-em-Ipt, mentioned in the Anastasi Papyrus of the time of Rameses II, who is questioned about Beth-Shan and various other places by Hori, another scribe: "Pray, teach me concerning the appearance of Qyna; acquaint me with Rehob; explain Beth-Shan and Tyrqel; the stream of the Jordan, how is it

crossed? Cause me to know the way of crossing over to Megiddo.”⁴

The places in the southern temple of Rameses II to which the numbers in Fig. 5 refer are as follows :—

(1) *Corridor* leading from near the great pylon gateway between the temples (foundations only shown in sketch) straight towards the door of the southern temple.

(2) *Side entrance* leading into

(3) *The temple door.*

(4) *Centre aisle*, screened by low walls between papyrus-shaped columns, leading direct into the shrine. The foundations of these screen walls were actually found, but the two cross screen walls hiding the shrine are restored. Against the centre column base on the north side of the aisle was a pot full of gold and silver ingots and jewellery, over 6 lb. avdp. in weight, and against the opposite base on the south side of the aisle a pot filled with silver jewellery and ingots weighing over 5 lb. avdp.

(5) *Shrine* with altars and steps. Entirely destroyed, but here restored more or less after those in the Seti I temple.

(6) and (7) *Side corridors* leading to store-rooms.

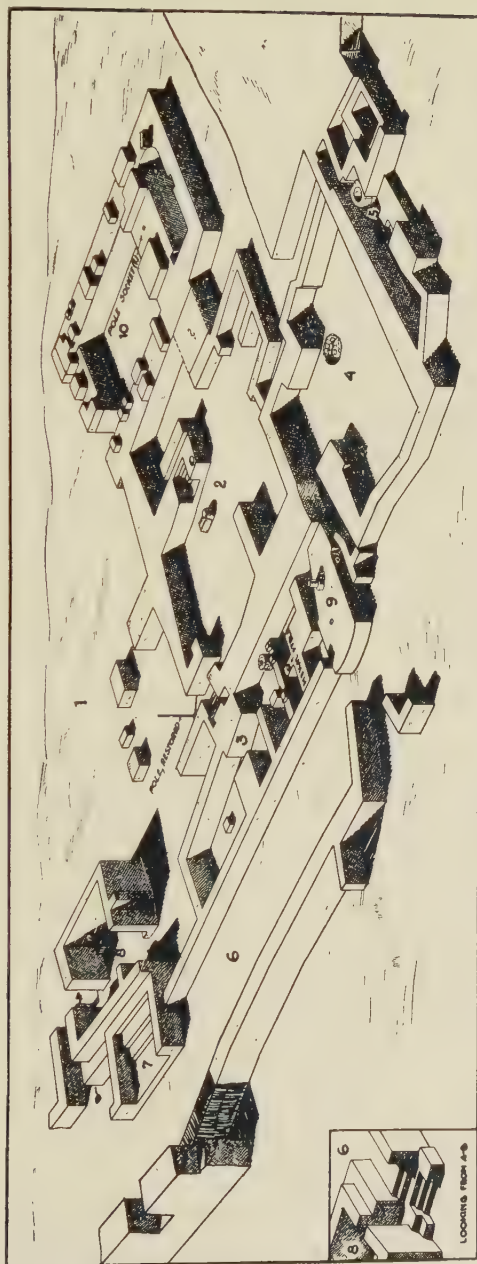
(8) *Store-rooms.* The store-rooms on the southern side of the building are of course not visible. The two apertures in the roof over the latter store-rooms are for light and air.

In order to show clearly the interior of the temple the upper parts of the walls in the foreground, and part of the clerestory, have been removed in the sketch.

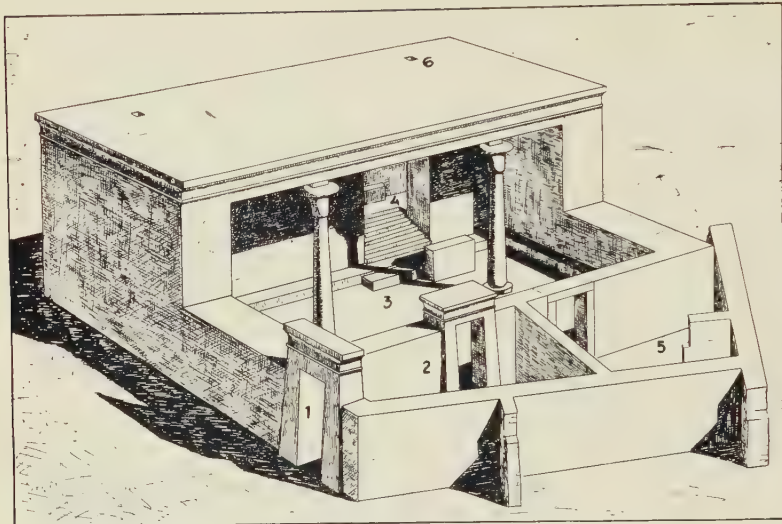
Of the great numbers of most interesting sacred objects found in all the temples at Beth-Shan we cannot here speak, but we may add in conclusion that those particular objects with figures of serpents on them indicate that the ancient city was the centre of a serpent cult, and this fact, in itself, seems to show that the city-name was in some way associated with the name of the old Mesopotamian serpent-deity Shakhan⁵, Sakhan or Shahan. “Beth-Shan” will then mean nothing else but the “House of the Serpent-god.”

⁴ Alan Gardiner, *Egyptian Hieratic Texts*, Part I., p. 24. There is, of course, no evidence to show that the individuals named were one and the same person.

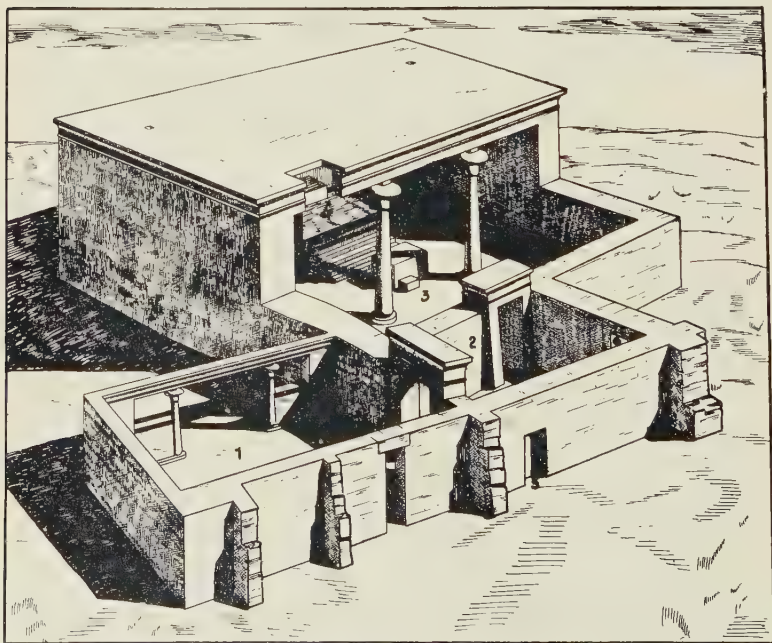
⁵ Attention may be drawn to the interesting fact that the word Shakhan written in the reverse direction becomes the word for “serpent”—*nakhash*. Metathesis in connection with divine names was by no means



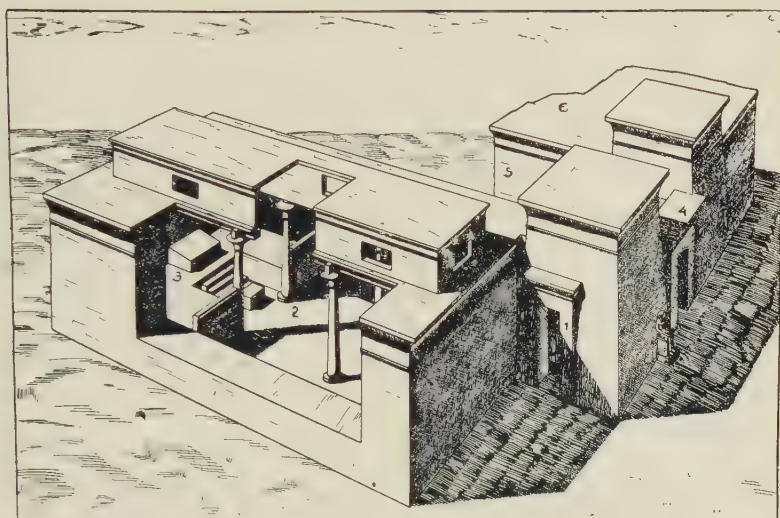
1. BETH-SHAN III. SANCTUARY OF THOTMES III. (NOT RESTORED.) LOOKING N.W.



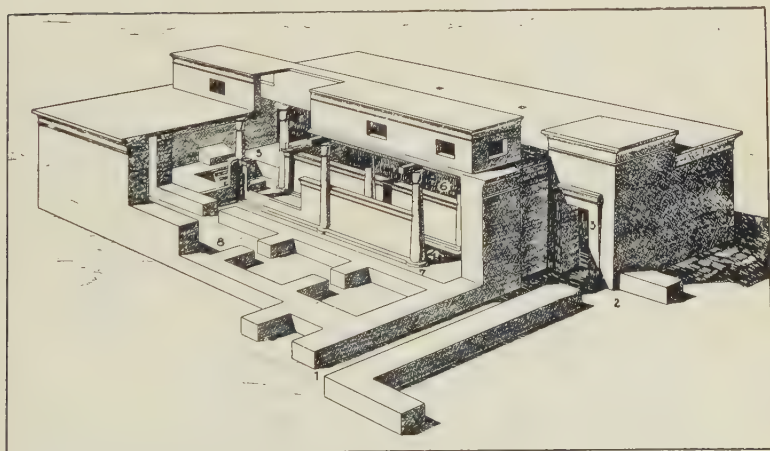
2. BETH-SHAN : TEMPLE OF AMENOPHIS III. (RESTORED.)
LOOKING N.E.



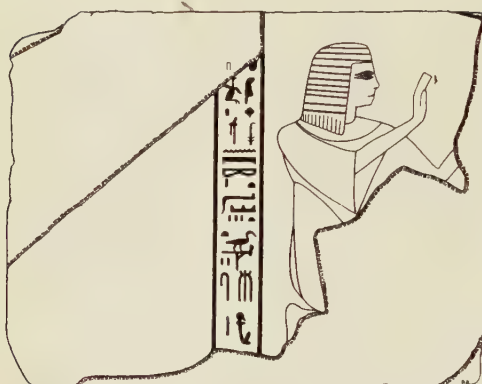
3. BETH-SHAN : TEMPLE OF SETI I. (RESTORED ; AND PART OF
ROOF REMOVED TO SHOW UPPER ALTAR.) LOOKING N.E.



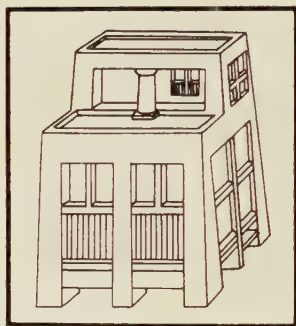
4. BETH-SHAN: TEMPLE FOUNDED BY RAMESES II. (RESTORED;
PART REMOVED TO SHOW INTERIOR.) LOOKING S.E.



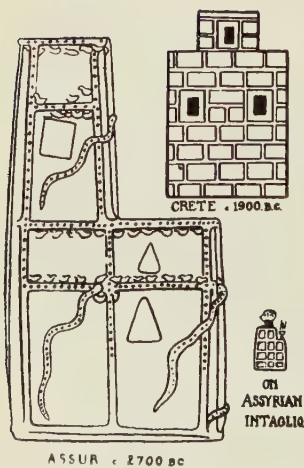
5. BETH-SHAN: TEMPLE FOUNDED BY RAMESES II. (RESTORED;
PART REMOVED TO SHOW INTERIOR.) LOOKING S.E.



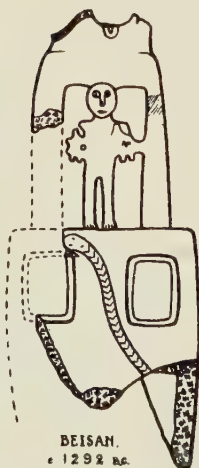
6. BETH-SHAN : DOOR-JAMB WITH
RAMESES-WESR-KHEPESH.



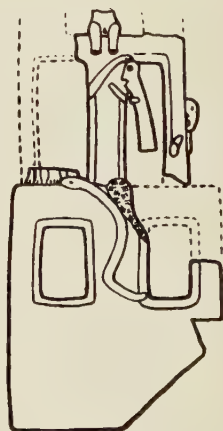
8. BETH-SHAN : MODEL OF
STAGED BUILDING FROM
EGYPT.



ASSUR c 2700 BC



BEISAN.
c 1292 B.C.



BEISAN - 1292 B.C.

7. BETH-SHAN : SHRINE HOUSES.

THE PLATES.

1. Sanctuary of Thotmes III (1501-1447 B.C.) dedicated to the local god Mekal, showing the characteristics both of a temple and of a "high place." (Not restored.) Looking north-west.
2. Temple of Amenophis III. (1411-1375 B.C.). (Restored.) Looking north-east.
3. Temple of Seti I. (1313-1292 B.C.). (Restored; part of roof removed to show upper altar.) Looking north-east.
4. Temple founded by Rameses II. (1292-1225 B.C.), and in use until about 1020 (time of Saul). Probably the "house of Ashtaroth" (I Samuel xxxi., 10. In right back-ground is part of the temple shown in Fig. 5. (Restored; part removed to show interior.) Looking south-east. Note statue of Rameses III (1198-1167 B.C.) near the Pylon gateway.
5. Temple founded by Rameses II (1292-1225 B.C.), and in use until about 1020 (time of Saul). Probably the "temple of Dagon" of I Chron. x, 10. (Restored; part removed to show interior.) Looking south-east.
6. Door-jamb showing figure of Rameses-wesr-khepesh, builder of the temples of Rameses III at Beth-shan.
7. Ancient models of shrine houses, the upper [part of some of which are like clerestories.
8. Model of staged building from Egypt. (After Perrot and Chipiez; *Histoire de l'Art*, i, p. 486.)

uncommon in the past. The root *n-h-sh* seems to mean "serpent" in all its permutations in Semitic languages. In the Arabic the word *hanash* is used in the same sense. The name of the Ammonite (Nahash - Nakhash) who was defeated by Saul, see above, is curiously enough the same as the word for "serpent". A sacred serpent-stone which existed at En-rogel, near Jerusalem, in the time of David, is referred to in 1 Kings i., 9—*The Old Testament, An American Translation*, ed. by J. M. Powis Smith, p. 542. A bronze serpent was found in the "high place" at Gezer, and since the discoveries of serpent objects at Beth-Shan, numbers of similar objects have been found elsewhere in Palestine.

DESIGNS OF THE TORAH SHRINE IN ANCIENT SYNAGOGUES IN PALESTINE.

BY DR. E. L. SUKENIK.

The Torah shrine, *Aron ha-Kodesh*, is a frequent motive in early popular Jewish art in Palestine and in the lands of the Diaspora. We find it depicted on the walls of the tombs in the Jewish catacombs in Rome, on sepulchral monuments, sculptured reliefs and mosaic pavements in synagogues, gilt glasses, and, at a later period, also in illuminated manuscripts and the like. In all these illustrations, except for slight variations, the Ark remains unchanged in its general structural lines. Therefore there is reason to suppose that the craftsmen had before them an actual traditional model of an Ark, in which the scrolls of the Law were kept in synagogues. The variations are mainly in the roof of the Ark, which is sometimes pointed and sometimes arched. It has almost always a double door, in the wings of which are seen carved squares, from two to five in number. Sometimes the Ark is shown with open doors, and then the scrolls of the Law appear lying on shelves inside.

In the illustrations of the *Aron ha-Kodesh*, hitherto discovered in Palestine, the doors of the Ark are always shut. The first illustration of this kind found in Palestine is on a round, bronze plate which Clermont-Ganneau acquired for the Louvre in the early eighties of last century. This plate was found in the village of Na'aneh, near Ramleh.¹ It had apparently belonged to a local synagogue.² Its diameter is fifty centimetres, and about one-third of it is missing. Its rim is decorated with projecting balls. The space in the middle is decorated with simple engravings of interlaced branches and flowers. Within a vine shoot traversing the entire ledge appears

¹ Clermont-Ganneau, *Mission en Palestine et en Syrie*, pp. 78-79, No. 62; see also Dussaud, *Les monuments Palestiniens et Judaïques*, Paris, 1912, No. 97. These authors have not dealt with the character of the Ark shown on the plate.

² There are no literary references to any Jewish population in this place, though the plate evidently points to such a population. It is probable that the two squared capitals which Clermont-Ganneau found in this village, one bearing the Greek inscription $\epsilon\iota\varsigma\ \theta\epsilon\acute{o}\varsigma$, also belongs to this synagogue. An inscription on a capital similar to that in Na'aneh was also found in Emmaus, which also bore in Samaritan characters the inscription—"Blessed be His name for ever"—and which certainly belonged to a Samaritan synagogue in that town. *Op. cit.*, p. 16.

a seven-branch candlestick and also an Aron ha-Kodesh with shut doors and with two squares on each wing. The roof of the Ark is pointed.

A picture of the Aron ha-Kodesh is also carved on a relief on a lintel, apparently belonging to one of the gates of the courtyard of the ancient synagogue in Capernaum. (Plate I.) In the centre of this lintel an arc with a double door is shown in relief. In the wings of the door are three squares inset. The lintel of the Ark is decorated with a row of concave rings, and the triangular roof with two wreathes, having a bar between them. There is a similar design on a frieze in the ancient synagogue in Chorazin. Two ionic columns bear a triangular roof, whose surface is filled in with a shell. But since the doors do not appear here at all it is difficult to be sure whether the sculptor intended to depict the Ark.

The first example of a design of the Ark on a mosaic pavement of an ancient synagogue was found by the Dominican Fathers in their excavations of the synagogue at Na'aran, near Jericho. In this attractive picture the Ark stands between two seven-branch candlesticks. Much of the picture was found already broken at the time of the excavations. From what is left it is still possible to see the bottom of the Ark and its doors divided into undecorated squares. The sole ornamentation consists of the circles above the diagonal lines of the triangular roof.

A design of the Ark in a mosaic floor in a state of complete preservation was found in the excavations carried out by the Hebrew University in the ancient synagogue at Beth-Alpha, west of Beisan. (Plate II.) In the rectangle of the Ark, resting on a wider base, are the two wings of a closed door. Each wing is divided into four large squares. In the centre of each of these is a smaller square filled in with chequer-work, or geometrical designs formed of lines in varied colours. The inner square is wholly surrounded by a wavy border line. Flowers and triangles in red and black decorate the contained space of the larger square here and there. On the lintel of the Ark stand three vases with flowers, decorating the two ends of each. A triangular roof, here shown disproportionally large, surmounts the rectangle of the Ark. In the centre of the triangle is depicted a shell above which is seen a lantern suspended from the apex of the roof (the so-called "Eternal Lamp"). Two large birds, apparently ostriches, one on each side of the roof, stand facing one another, with one leg resting on the horns projecting from the top corners of the

rectangle, and the other leg on the triangular projections on the sides of the roof.

An interesting relief of an Aron ha-Kodesh was recently discovered by the Jews of the village Pekiin, el-Bukeia, in Upper Galilee. The modern synagogue of this village contains a number of stones with

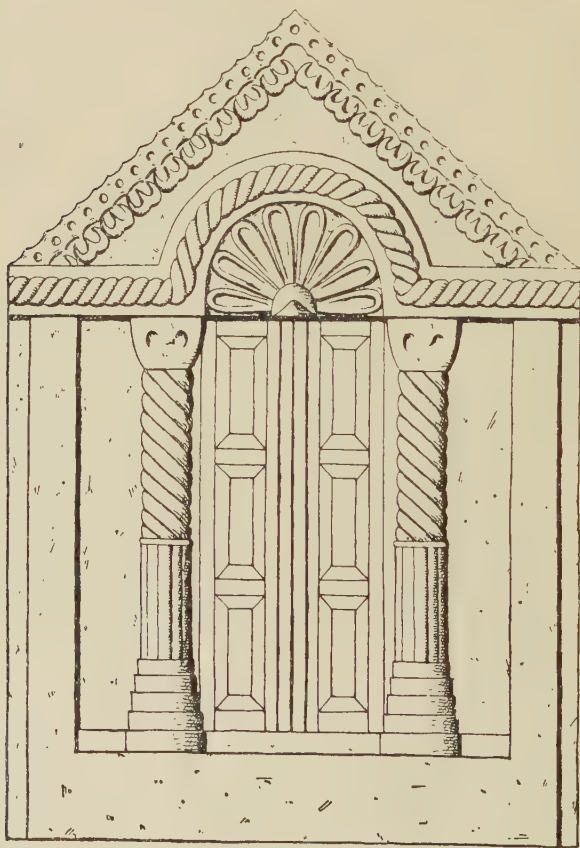


FIG. 1.—"TORAH SHRINE," PEKIIN.

interesting designs carved on them from the ancient synagogue which used to be here. These came to light when the plaster covering the walls and pillars of this building was removed during recent years. Mr. I. Ben-Zevie dealt with this design, which he called



“TORAH SHRINE,” CAPERNAUM.



“TORAH SHRINE,” BETH-ALPHA.

the "Door-tablet," in the October issue of the *Quarterly Statement*.¹ Since, however, his description was incorrect, and on the photograph which he added to his article there was not much of the design to be seen.² I wish to give here a drawing of it, which was made on the spot. (Fig. 1.) Parts of the design on this stone are now broken away, but they are reconstructed on this drawing. The wings of the double door of the Ark on this design are divided into three narrow rectangles. The door is surmounted by a shell (not a "half sun radiating its rays"); at its two sides are two half columns in relief, erected on bases fashioned like steps and crowned by capitals. The engaged columns themselves are decorated on their lower portions with carving of perpendicular rods, and on their upper portions with carvings of twisted rope surrounding the columns in diagonal lines. It differs from the relief at Capernaum in that the triangular roof extends beyond the actual door, and in that it is supported by two pillars. The base of the triangle is decorated with carvings of twisted rope, and its two sides with a row of small round holes, and beneath it a row of carvings shaped like the Greek letter Omega.

¹ I. Ben-Zevie, "Discoveries at Pekiin," *Q.S.*, 1930, p. 210.

² *Op. cit.* Plate II, 2.

BRITISH SCHOOL OF ARCHÆOLOGY IN JERUSALEM.

THE Annual General Meeting of subscribers to the School was held on Friday, November 21st, 1930, in the Rooms of the Society of Antiquaries, Burlington House, Piccadilly, London, W.. Professor J. L. Myres (Chairman of the Council of the School) presided over the Business Meeting, at 4.30 p.m., and the Rev. Professor A. H. Sayce, D.D., LL.D., Ph.D., over the Open Meeting at 5 p.m., when the Director, Mr. J. W. Crowfoot, C.B.E., M.A., described the School's *Excavations at Jerash (Gerasa)*, and Miss D. A. E. Garrod her excavations of a *Palæolithic Deposit in Caves at Athlith*.¹ Both addresses were illustrated by slides.

BUSINESS MEETING.

The minutes of the last Annual General Meeting were read by the Hon. Secretary (Mr. C. E. Mott), confirmed and signed by the Chairman. Apologies for absence were received from Sir Frederick Kenyon, Sir Charles Close, Sir Arthur Keith and Professor Garstang.

The Chairman (Prof. J. L. Myres) proposed a resolution of condolence with the representatives of two eminent scholars and colleagues who have passed away during the year : Sir Israel Gollancz, one of the founders of the School, and an active member of the Council, and Dr. H. R. H. Hall, Keeper of Egyptian and Assyrian Antiquities in the British Museum, also a valued member of Council, as well as Chairman of the Palestine Exploration Fund.

REPORT AND ACCOUNTS.

The Chairman submitted the Council's Report for the year 1929-30 ; the Accounts for the year 1929, and Supplementary Accounts to September 30, 1930¹. As it was more convenient for the general conduct of the business of the School that its financial year should close in September, not in January, the middle of the season, it was proposed that henceforward the accounts should be presented to the Annual Meeting up to the close of September. Subscribers would not be asked therefore, in future, to consider and ratify accounts already nine months old, nor an interim statement which did not really represent the working of the School.

¹ See below, pp. 37—41.

Attention was drawn to the paragraph in the Annual Report headed "Economies and Reorganisation in Jerusalem." As the School's income had not increased, the Council had considered carefully, with the help of the Director, how, without crippling the activities of the School, it would be possible to diminish expenditure during these lean and difficult years; and had decided that it would not seriously interfere with the conduct of the School's work if the lease of the upper floor of the temporary Government Museum was relinquished. It was not possible for students to reside there, if there was to be proper accommodation for the Director; and Mr. Crowfoot found that, when he was in Palestine, the greater part of his time was spent in the field, so that he did not require a permanent residence of that sort. It was, however, necessary to provide storage room for the field equipment, and this could be easily arranged. More serious was to find proper accommodation for the Library: and there had been a most gracious and welcome offer of hospitality from the authorities of the American School of Oriental Research to make available their Seminar Room, and to take in the School's books as a supplement to their own considerable library. It was hoped that the economies which were expected to be effected by that transference would enable the School to repay, in part, the hospitality of its American friends by spending rather more than hitherto on books and periodicals for the library. Lists of desiderata and accessions had been carefully prepared, and it had been possible to avoid needless duplication, and to spend what was thereby saved in purchases of common utility.

The Chairman also drew particular attention to the paragraph headed "Co-operation with the Palestine Exploration Fund." There had been during the past winter a series of conferences between the officers of the British School of Archæology in Jerusalem and the Palestine Exploration Fund, as a result of which there had been issued a "Joint Statement and Appeal" setting out both the separate objects and the common interests of the Fund and the School. For future co-operation, it had been arranged that the officers of the School and of the Fund should meet as a Joint Advisory Council, with an independent chairman, Sir Frederick Kenyon. It was hoped that thus the two bodies would enjoy mutual support, and perhaps even more considerable public support.

The Projected Excavation of Samaria.—This matter does not

appear in the Report because it took full formal shape only within the last few weeks. Harvard University has been considering a project for an extensive excavation of the famous site of Samaria. There was excavation in Samaria by Dr. Reisner some years ago, the results of which have already been published. But Dr. Reisner only excavated part of the site, and there is every reason to believe that there is much still to be found. Harvard University, represented by Professor Kirsopp Lake, Mr. R. P. Blake, and others—Mrs. New representing the Harvard Executive is present here, and we are glad to see her—have most kindly invited the Hebrew University of Jerusalem to co-operate with the Palestine Exploration Fund and the British School of Archæology in Jerusalem. The British Academy also most generously has made the work of the British wing of the joint expedition very much easier by contributing for the first year £1,000 from the Schweich Fund. That makes us secure this year with regard to British co-operation.

The excavation will be under the direction of Mr. Crowfoot, Director of the British School in Jerusalem, and we cannot wish anything better than that. The students of the School, according to their abilities, will co-operate under Mr. Crowfoot's direction. The actual operations at Samaria will be supervised by a Field Committee consisting of Professor Kirsopp Lake, as chairman, Mr. Crowfoot as director, Dr. Sukenik, of the Hebrew University, and Mrs. New. If and when Dr. Lake comes home, he will be replaced by Dr. Robert P. Blake. In London, any matter that need be referred will come to the Home Committee, consisting of Sir Frederick Kenyon, secretary of the British Academy, Sir Charles Close, Chairman of the Council of the Palestine Exploration Fund, and Professor J. L. Myres, as Chairman of the Council of the British School of Archæology. Harvard, of course, will have its own organisation to deal with any question which may need to be referred to America.

Satisfactory arrangements are in course of settlement for the publication in the first instance, naturally, from the field front, in the event of any discovery deserving notice in the Press. The *Quarterly Statement* of the Palestine Exploration Fund, which also includes the *Bulletin* of the British School, will publish what is necessary for British subscribers and sympathisers, and more formal interim reports will be furnished on both sides of the water.

It is understood that in due course definitive publication will be undertaken by Harvard University. Subscribers to the British School in Jerusalem will appreciate the importance of this venture, and will do what in them lies to secure the fulfilment of our undertaking to raise not less than £1,000 a year for the next three years, to meet the very liberal appropriations which [Harvard University and its friends are providing.

Accounts.—The Hon. Treasurer (Mr. Robert Mond), in presenting these, reminded the subscribers that as a not unexpected result of the transfer of Palestine from the Foreign to the Colonial Office, the grant to the School had ceased, and it had been necessary to curtail expenditure. It was, on the whole, disappointing that the number of subscribers had not increased; receipts had remained stationary for a considerable time past. It was, however, hoped that excavation of a site so remarkable as Samaria might stimulate more popular interest in the School and might, either through the School's friends, the Palestine Exploration Fund, or its own funds, increase the number of those anxious to help in carrying on its work. There has been received, gross, up to 1st January, 1930, the sum of £2,655 8s., as compared with £2,445 8s. in 1928. Since the former date and up to 30th September, the sum of £1,728 had been received. That would barely enable the School to carry on its programme, but every little amount extra enabled it to accomplish a great deal more. Therefore, present subscribers were urged to use their personal endeavours to obtain as many more subscribers as possible.

The Report and Accounts were then unanimously adopted.

Election of Officers and Council.—The Chairman said that three years ago subscribers had re-elected the Council *en bloc* for three years, with the result that it had not been possible to provide either for rotation or for filling of vacancies. Under the ordinances, the President, the Chairman of Council, the Secretary, the Treasurer, and the two Trustees were members of Council *ex officio*. These were all still willing to serve in their respective capacities. Subscribers had now to elect, in accordance with the ordinances, twelve Members, and the Council recommended that these should be divided into three panels of four, to hold office for three years, two years, and one year respectively, so as to provide for successive re-election and substitution. That would leave four vacancies for the new Council to fill by co-operation.

It was accordingly proposed that Sir Charles Close, K.B.E., F.R.S., Chairman of the Palestine Exploration Fund; the Revd. Sir Edwyn Hoskyns, Bart., Vice-President of Corpus Christi College, Cambridge; Geoffrey R. Driver, Esq., M.A., Fellow of Magdalen College, Oxford; and Professor Bernard Ashmole, University College, London, be elected for three years from November, 1930: Rev. W. J. Phythian-Adams, M.A., D.S.O., M.C.; Dr. E. W. G. Masterman; Sir Arthur Keith, F.R.S.; and Mr. J. E. Quibell, for two years; and Sir Arthur Evans, F.R.S., The Very Rev. Sir George Adam Smith, D.D., Professor F. C. Burkitt, D.D., F.B.A., and Dr. S. A. Cook for one year. The new Council has four places to fill by co-optation.

Rev. R. S. Cripps proposed that these elections be made. The names carried with them every guarantee that the good work done by the Council would be continued; work which called for great knowledge and willingness to pay attention to detail. Mr. Ernest Woolley, in seconding, said how pleased he was to hear the Chairman's opening remarks; and the resolution was carried unanimously.

The Chairman thanked the proposer and seconder for their remarks, which he felt sure the Council appreciated to the full. The Fund had passed through a difficult time, and difficulties would continue until more money came in. Subscribers were asked both to increase their own subscriptions and also to induce others to subscribe.

Election of Auditors.—On the motion of Mr. Ernest Woolley, seconded by the Rev. R. S. Cripps, Dr. E. W. G. Masterman and Mr. J. E. Quibell were unanimously re-elected Auditors for the ensuing year.

OPEN MEETING OF SUBSCRIBERS AND FRIENDS OF THE SCHOOL.

The Chairman, in vacating the Chair, heartily welcomed the Revd. Professor A. H. Sayce, D.D., D.Litt., Ph.D., who presided over the Open Meeting.

PROFESSOR SAYCE: When I was young "Jerusalem" and "The Holy Land" were words with which to conjure the British public. It was almost as easy to obtain money for a Palestine Exploration Fund as it was for a Missionary enterprise. The interest excited by Layard's discoveries at Nineveh was due, not to the light which they threw on the history and art of the past, but to the fact that

Jonah had preached to the people of Nineveh, and that Sennacherib's host had perished under the walls of Jerusalem. The Authorised Version of the Bible was still the book best known to the middle classes, and all respectable people went to church.

Unfortunately, times have changed. On the one hand the old Puritan tradition is dead, and a football match excites far more interest than any light that may be thrown on the Old and New Testaments. On the other hand, scientific archæology has come into existence, and along with it methods of research and excavation which appeal only to the instructed few. The excavator's primary aim to-day is to obtain historical facts, and not what are called "Museum objects." Moreover, scientific methods, together with the training they imply, have combined with the general rise of wages and prices in the East to increase very largely the cost of excavating work.

It is not wonderful, therefore, that the British School of Archæology in Jerusalem has fallen upon evil days. The British Government has never been famous for its support of learning, and still clings to the old tradition which has been handed down from the days when the larger part of the wealth of the country was in the hands of those whose education and social surroundings might be expected to give them an interest in classical art and history. The small pittance which was doled out to the School by the British Government after the War has been withdrawn, and it is with somewhat a feeling of shame that we look at the contrast presented in this respect by the Governments of France or Italy, or even Greece.

In spite of all this, however, the School has reason to be proud of the work which it has already accomplished. Nineteen students have already been received by it: its library has been kept up-to-date, and work in the field has not been neglected. Thanks to co-operation with the Palestine Exploration Fund, its reports are promptly published and a home has been found for its work in London, and for its library in Jerusalem. Above all, it has been able to provide efficient workers and directors, for excavations in Palestine itself, with the assistance of the Palestine Exploration Fund, and at Jerash with the assistance of the University of Yale.

In these days the importance of such excavations need not be emphasized. It is only through them that the past history of the country can be recovered and followed, not only in the pre-literary

period, but to a large extent in the early literary period as well. And it is more especially in the early literary period that Palestine played the leading part it has taken in the world. The birthplace of two of the great religions of the world, and the foster-nurse of a third, it has peculiar claims on the Christian and the Jew. On the non-religious side it was the meeting-place of the great empires of the ancient East, more particularly of Egypt and Assyria. Here were fought some of the battles which have decided the course of civilization.

But excavation in Palestine is hindered by unusual difficulties. The country itself is small in size and the southern part of it is a land of rocks and mountains with but little soil in which the remnants of past civilisations could find an enduring resting-place. It has been occupied again and again by invaders and settlers, and the newcomers have been apt to destroy the monuments and memorials of their predecessors. And so far as literary remains are concerned, we now know that there were special reasons for their absence.

It is only in the dry climate of Upper Egypt that papyri can be preserved. And in Palestine papyrus seems to have been the ordinary writing material. The Mosaic law laid a ban upon the use of stone or metal for artistic purposes, and where the artist was wanting, the engraver of an inscription was usually absent also. I once hoped that libraries of clay tablets might be found like those of Assyria and Babylonia, but Egypt and its papyrus books appear to have been too near at hand to have allowed the educated class to think of any other form in which to preserve its literature. The clay tablets which have been discovered belong to the Amarna age, the period when Palestine was an Egyptian province, and when even in Egypt itself all foreign correspondence had to be carried on in the Babylonian language and script. As in Egypt, so too in Palestine, it would have been only the rooms of the Foreign Office, and not the religious and royal libraries, in which the written documents were inscribed on clay.

The recent discoveries of the French excavators in Syria have shown that the origin and use of the Phœnician alphabet go back to a much earlier period than we had hitherto supposed. Consequently, we no longer have any reason for thinking that the royal scribes of David and Solomon, or of the library attached to the temple and palace at Jerusalem, employed any other system of

script, or any writing material except papyrus, and possibly parchment. The library must have been founded by Solomon when the temple and palace were built, and must have survived the sack of Jerusalem by Shishak, since the proverbs compiled in his reign were "copied" and re-edited by the library scribes of Hezekiah (Proverbs, XXV, 1.).

The recent excavations on the site of Jerusalem itself have settled a good many questions, and raised a good many more. The site, unfortunately, is an exceptionally difficult one for the excavator. Not only are the remains of the various epochs in its history intermixed, but the relics and rubbish of the pre-exile Jerusalem destroyed by Nebuchadnezzar must be lying some 50 or 70 feet deep at the bottom of the old valley of the Son of Hinnom, and under Mohammedan cemeteries which cannot be disturbed.

Much, however, has been done. The topography of pre-exilic Jerusalem has been settled in its main features, and even the wall of the Jebusite fortress has been traced. But the work has been terribly hampered by the conditions under which it has had to be carried out. The ground of Mount Ophel is parcelled out among a number of small landowners and the excavator, instead of being able to clear an extensive space and work freely wherever discoveries in the course of his work may make him think it advisable, has been obliged to dig, as it were, piecemeal, with the chance of being stopped just where an investigation of the surrounding ground has become necessary. All the more credit, therefore, to the excavators who have, nevertheless, brought so much to light.

But many questions still remain unanswered. What relation was there between the early city on the Temple-hill and the Jebusite fortress on Mount Ophel which afterwards became united with it? The name of Jerusalem is of Babylonian origin and not Canaanite: this is a primary fact, which writers on the subject are in the habit of ignoring. In the Tell el-Amarna tablets it is called Uru-Salim, "the city of the god Salim," or Salimmu, of whom a representation is given on a seal, which is, or was, in the Hermitage at Leningrad, where I copied it in 1889. Uru-Salim must, therefore, have been founded or re-founded by the Babylonians, and this can only have been in the age of Ammu-rapi, or Amraphel, when the Babylonian Empire included Palestine, and the asphalt of Hit on the Euphrates

was supplemented by the asphalt of the regions adjoining the Dead Sea.

In the Tell el-Amarna age, the governor of Jerusalem, under Egyptian suzerainty, bears a Mitannian or Amorite name, and his letters to the Egyptian government are full of despairing requests for aid against the invading Khabiri. As the Khabiri, or Khabirryas, as the Hittites called them, were the mercenary bodyguard of the Hittite Kings—a Hittite tablet from Boghaz Keui tells us that 600 of them guarded the chief temple there, while another 600 guarded the gate of the city—we must see in them bands of Hittite irregulars who were living by plunder on the country. Then the curtain falls upon the screen, and we hear no more of Amorites or Hittites, except in the prophecies of Ezekiel, who tells us that, though built in the land of Canaan, the father of Jerusalem was an Amorite and its mother a Hittite. When the curtain rises again, Jerusalem has become Jebus, and its occupants are Jebusites. Who were the latter, and what was their origin?

It is a far cry from the Jebusites to the mosaics of the churches at Jerash, and the Monastery of S. Euthymius at Khan el-Ahmar. At Jerash no less than thirteen early churches have been brought to light and studied, and the mosaics which have been recovered in them are among the most interesting and ornate relics of Christian art that have come down to us. For the history of Byzantine ecclesiastical art and architecture, the new finds are of special importance.

Of similar importance for the history of palaeolithic man is the work that has been done by Miss Garrod at Athlit, where Mousterian man once chipped his flints. The stratification of the remains he left behind is unusually clear. Palestine is now yielding up to us a picture of man from his earliest beginnings down to our own day. Century after century it has been the historic ground on which that history has been portrayed.

I cannot conclude without a word or two of reference to the double blow which Palestinian research has suffered in the deaths of Sir Israel Gollancz and Dr. Hall. The premature death, indeed, of my old friend, Dr. Hall, is a loss to the archæology of the Near East which cannot be measured in words.

I now call upon Mr. Crowfoot, Director of the School, to give us a discourse on the "Excavations at Jerash (Gerasa)".

EXCAVATIONS AT JERASH.

The following is a summary of Mr. Crowfoot's address:—

Excavations were again carried out on both banks of the river. On the east bank, a most interesting church at the north end of the town was excavated. The church was dedicated in 464-5 A.D. to the Prophets, Apostles and Martyrs, and the plan, which is cruciform, is believed to be unique.

On the west bank, work was resumed in the great group of Christian buildings round the Fountain Court, which threw unexpected light on the earlier history of the site. It was found that the cathedral of the fourth century was built above a small temple which probably dated back to the first century, and that this temple was approached by a flight of steps still underlying the magnificent flight of steps which was cleared in 1929. The series of buildings on the north side of the complex also was found to belong in origin to the classical period, and there is reason to believe that the whole precinct may have been dedicated to the infant Dionysius like the smaller of the two great temples at Baalbek.

EXCAVATION OF PALÆOLITHIC DEPOSITS IN THE CAVE OF THE VALLEY, NEAR ATHLÎT.

The following is a summary of Miss Garrod's address:—

The Mugharet el-Wad ("Cave of the Valley"), on the western slope of Mount Carmel, and near Athlit, contains six layers of deposit corresponding to different stages of the Palæolithic, and one layer referable to the Mesolithic—the most complete prehistoric sequence so far found in the Near East. The most interesting discoveries of this year were made in the Mesolithic layer on the terrace of the cave, which yielded microlithic flint implements in great abundance, associated with a number of objects made of bone, such as beads, pendants, pins, sickle-blade hafts and harpoons. At the base of the layer were found three burials, the body in each case being laid on a hearth containing food remains, and packed in with blocks of limestone. One of these burials was associated with a remarkable series of basins cut in the rock, the earliest example of this kind of work so far discovered. The presence in a Mesolithic stratum of sickle-blade hafts and sickle-blades in great abundance

*The full text of Miss Garrod's paper will be printed in the next issue of the *Q.S.*

provides interesting evidence that in this region some form of primitive agriculture preceded the invention or arrival of pottery.

The work of excavation is being carried on by the British School of Archæology in Jerusalem in collaboration with the American School of Prehistoric Research.

Votes of thanks were proposed by Prof. J. L. Myres to Professor Sayce for having been so good as to come at some risk to health to take the chair, and for having delivered his most interesting address ; to Mr. Crowfoot and Miss Garrod for their interesting descriptions of their respective excavations ; and to the Society of Antiquaries for the use of the room.

BRITISH SCHOOL OF ARCHAEOLOGY IN JERUSALEM.

REPORT FOR THE SEASON 1929-30.

THE COUNCIL, in its report for 1928-29, found it necessary to warn the subscribers and friends of the School that it would be difficult to maintain the British School of Archaeology in Jerusalem on its customary basis unless larger funds could be raised.

The statement of accounts now submitted for the year 1929-30 shows, nevertheless, that the general resources of the School have been still further reduced. Subscriptions are slightly diminished, chiefly through the death of old supporters; and there have been fewer life-compositions and donations to general account than last year. Consequently, it has been necessary to draw on an already depleted balance, and to take in hand substantial economies, which it is hoped may be temporary, and will not be found to affect seriously the essential activities of the School.

Economies and Reorganization in Jerusalem.—For whereas in the British Schools of Archaeology in Athens and Rome it has been found necessary to provide not only a suitable residence for the Director, but also a hostel for the students, in Palestine the circumstances are so far different that most of the work of the School goes on in excavation camps and other field work; comparatively little time is spent in Jerusalem, and students seem always (and rightly) to prefer life in the open country. In practice even the Director's quarters have been frequently unoccupied; there has been no Assistant Director since February, 1928. The Librarian lives elsewhere, and is employed in the School only for part of his time; and students, when they happen to be in Jerusalem, have always found hospitable welcome from our good friends the Dominicans, or at the American School of Oriental Research, or at St. George's Cathedral, or elsewhere.

By giving up the lease of the upper floor of the temporary Government Museum, which has been the School's headquarters hitherto, and would probably have had to be vacated in any case

when the new Museum is ready, it is estimated that an annual sum of about £300 is being saved in rent, repairs, maintenance and service. The Director is satisfied that he can obtain elsewhere the accommodation he occasionally needs. The only outstanding question, therefore, is as to the disposal of the Library. ☺

Co-operation with the American School of Oriental Research.—For this purpose the American School of Oriental Research, with which the British School has always enjoyed intimate and friendly relations, has most generously offered the use of its own Seminar Room, so long as this is not required for other purposes, on the sole conditions: (1) that its own Director and students shall have the use of our books; (2) that both Directors may admit other qualified persons at their discretion, and (3) that the British School shall bear the current expense of maintenance.

To the Director and to the Management of the American School the Council tenders most cordial thanks for this opportune help. During the winter months, when field work ceased, the Director and Librarian have been able to complete the transfer and installation of the books. It was found impossible to adapt the old bookcases, but new ones were made at a cost of £13 10s., and the sale of furniture from the old premises of the School left a balance on capital account of some £86, after defraying all expenses of transfer.

These economies should make it possible in future to spend more than heretofore on the Library and Research Equipment, and the proximity of the larger library of the American School has allowed both libraries to dispose of duplicated periodicals and to make their purchases on an agreed plan.

The arrangement is really a reversion to what obtained a few years ago before the present American School building was erected, when the two libraries were both housed under the roof of the British School, and steps were naturally taken by the two then Directors to prevent avoidable overlapping: the two libraries are therefore already to a large extent complementary to each other.

Co-operation with the Palestine Exploration Fund.—In pursuance of the wise advice of our Chairman, the Archbishop of Canterbury, at the last Annual Meeting, the officers of the School, in conference with those of the Palestine Exploration Fund, have carefully examined every means of closer co-operation between the two

institutions. The results are embodied in the "Joint Statement and Appeal" issued to both bodies of the subscribers in the spring of 1930. And in order to make completely clear the respective objects and methods of the School and of the Fund, a retrospect on the history and activities of each was printed in the *Quarterly Statement* for April, 1930. For all future co-operation, the officers of the School and of the Fund are to meet as a Joint Advisory Council, with an independent chairman. To Sir Frederic Kenyon, in this capacity, the Council would express the hearty thanks of all subscribers and friends of the School.

In future, then, the privileges of subscribers will be as follows :—

- (1) All existing subscribers to the Palestine Exploration Fund will retain their present privileges (as in January, 1930).
- (2) New annual subscribers of one guinea (£1 1s.), either to the Palestine Exploration Fund or to the British School, will receive the *Quarterly Statements* gratis, and will be entitled to purchase all the other publications of the Fund and of the School at reduced prices.
- (3) New annual subscribers of not less than two guineas (£2 2s.) to either institution, or of one guinea to each, will receive the *Quarterly Statements* and the *Memoirs* and *Annals* of both institutions as published, gratis.

The Director returned to Palestine at the end of October. He resumed work at Jerash in November and December, and again in 1930 in April and May. He paid a short visit to Antioch in January, but the greater part of the winter months was devoted to arrangements in connection with the surrender of the School quarters and the transference of the Library. He returned to England through Syria at the end of June, and his time since has been mainly occupied with preparing for the publication of the work of the last three seasons at Jerash.

Four open meetings were arranged in Jerusalem during the month of March. At the first of these, on the 10th, the late Sir Thomas Arnold gave a lecture on Christian and Jewish subjects represented in Islamic art; on the 16th, Mr. Guy on the work of the Oriental Institute of Chicago at Megiddo and elsewhere; on the 24th and 31st respectively, Miss Garrod and the Director on the excavations at Athlit and Jerash in 1929.

The Students of the School were six in number :—

Lieut.-Commander A. G. Buchanan, R.N. (1928), helped Mr. Chitty at Khan-el-Ahmar in 1929, attended lectures in the American School in the autumn and winter, and worked in the spring at Tell-el-Fara' with the expedition of the "British School of Archaeology in Egypt."

Rev. D. J. Chitty, B.A. (1927, New College, Oxford), spent most of the season at S. Mark's, Alexandria, in the study of the lives of Palestinian saints, but continued his excavations in the summer at Khan-el-Ahmar with grants from the Sanday Fund and from New College. There was still some work left to be done, which it is hoped Mr. Chitty may have completed by this time, with a grant from the Mond Studentship Fund.

Miss D. A. E. Garrod, M.A., B.Sc. (1928, Fellow of Newnham College, Cambridge), continued her excavation of the cave deposit of Mugharat-el-Wad, near Athlit, with important stratigraphical results, of which a preliminary account was given at the British Association Meeting at Bristol in September, 1930. Miss Garrod was assisted by Dr. Martha Hackett and by the sons of the Director of the American School, Mr. Theodore and Mr. Donald McCown. The cost of the work was met by a generous contribution from Mr. Robert Mond, and by a grant from the American School of Prehistoric Studies. Miss Garrod hopes to return to the same site in the coming season.

Mr. R. W. Hamilton, B.A. (1929, Senior Demy of Magdalen College, Oxford), took part in the winter in the excavations of the Pennsylvania University Museum Expedition at Medum in Egypt. Returned to Palestine in the spring and joined the Director at Jerash, remaining there till July. He has published in the *Quarterly Statement* for October, 1930, an annotated translation of the description of churches at Gaza by Choricus.

Mr. C. N. Johns, B.A. (1928, Emmanuel College, Cambridge), Librarian of the School, also spent the winter at Medum in Egypt; assisted with the transference of the Library to the American School in April; has since been appointed Field Archaeologist to the Palestine Government, and is engaged in clearing the great Crusaders' Castle at Athlit.

Mr. F. Turville-Petre (1925, Exeter College, Oxford), has now returned to Palestine to complete the excavation of the Zuttiyeh cave near Tabgha, where the "Galilee skull" was found by him in 1925; after which he hopes to examine a group of rude stone monuments, described as "dolmens," near Chorazin (for which a permit was given last year), with a grant by Mr. Robert Garrett.

Distribution of Duplicate Antiquities to subscribing institutions has again been made possible by the courtesy of the Department of Antiquities.

Excavations.—There was no excavation at Ophel this season and no subsidy to the School from the Palestine Exploration Fund for field work.

The excavations at Athlit and at the Monastery of S. Euthymius at Khan-el-Ahmar have been already mentioned.

At Jerash the School, in co-operation with Yale University, continued the exploration of the early Christian remains. The plan of a large church, dedicated in 464–5 A.D. to the Prophets, Apostles and Martyrs, was recovered, this being the thirteenth church studied by the joint expedition. Further work was carried out in the "Fountain Court" group of buildings, which threw unexpected light on the earlier history of the site, and some trial trenches were cut in the courtyard of the Temple of Artemis. Yale University is now proposing to undertake the excavation of the classical buildings at Jerash, a task which may take many years. In view of our commitments elsewhere, we have felt obliged to withdraw from Jerash, and our place there will be taken by the American School of Oriental Research in Jerusalem. The work will be under the direction of Dr. Clarence S. Fisher, who has been with us for the last two seasons. We offer our best wishes to the new expedition.

Obituary.—The Council deplores the death of Sir Israel Gollancz, one of the founders of the School and an active member of the Council, and of Dr. H. R. H. Hall, Keeper of Egyptian and Assyrian Antiquities in the British Museum, and Chairman of the Palestine Exploration Fund, whose cordial support of the School in all its undertakings will be sadly missed.

ORDINANCES
OF THE
BRITISH SCHOOL OF ARCHÆOLOGY IN JERUSALEM.
FOUNDED 1921.

OBJECTS.

1. The aim of the School shall be the study of the Archæology of Western Asia.

2. All branches of Archæology and cognate studies, and all periods of History shall be admitted within the scope of studies.

3. While Palestine and Syria shall be regarded as the central field of study, the archæology of surrounding areas shall be admitted within the scope of studies in so far as the civilisation of these areas may have influenced the historical development of Palestine.

4. The material equipment of the School shall include :—

- (a) A Library of Archæological and Topographical books.
- (b) A classified Catalogue of Archæological material.
- (c) Teaching apparatus.
- (d) Plant and appliances of every description for transport, excavation and exploration.

5. The collection and exhibition of antiquities shall not be regarded as a normal function of the School. Antiquities which may come into the possession or ownership of the School, not claimed by the Government, nor required for demonstration or educational purposes, shall be divided entirely amongst public museums, except when large numbers of similar objects are available, in which case they may be distributed to subscribers. In distributing to museums, the total of subscriptions from any place or district shall be taken into account.

6. His Royal Highness the Prince of Wales shall be the first Patron of the School, and the Right Hon. the Earl Curzon of Kedleston, Field-Marshal the Right Hon Viscount Allenby, and the Right Hon. Sir Herbert Samuel, H.M High Commissioner for Palestine, and such others as shall be nominated by the Council, and

duly elected, at a General Meeting, shall be Vice-Presidents of the School.

7. The Council shall consist of twenty-one Members, namely :—

The Chairman, Hon. Treasurer, and Hon.					
Secretary of the School	...	...	...	3	Members.
Representatives of the General Body of					
Subscribers	...	...	...	12	„
Members co-opted by the Council	...	...	...	4	„
The Trustees	...	...	...	2	„

The Council shall have full authority to give effect to these Ordinances, and to control the General Administration of the School. The Council shall submit to the General Meeting of Subscribing Members annually a Report on the Finances, Maintenance and Operations of the School. The Council shall meet as occasion requires, and not less than twice yearly.

8. The General Meeting of Subscribing Members and the Council shall each determine the periods of tenure and methods of election of their representatives on the Council. The Chairman, Treasurer and Honorary Secretary of the School shall be elected annually at the Annual General Meeting of the Subscribing Members, and shall hold office after election for one year and shall be eligible for re-election provided that they shall continue in office notwithstanding the expiration of the year for which they have been elected until other officers have been elected to replace them.

9. Any vacancy in the office of Chairman, Trustee, Hon. Treasurer or Hon. Secretary shall, until the next Meeting of Subscribers, be temporarily filled by the Council.

10. There shall be a Meeting of the Subscribing Members of the School at least once in every year.

11. The Council or six Subscribing Members may demand a special meeting of Subscribing Members.

12. The Hon. Secretary in consultation with the Chairman shall be convener of Meetings.

QUORUM.

13. The Quorum for a Meeting of the Council shall be three, and for a Meeting of Subscribing Members shall be seven.

MEMBERS.

14. Membership of the School shall be effected by subscription. The following shall be the rates of subscription and conditions of Membership :—

			Annually.			Life.		
			£	s.	d.	£	s.	d.
Associate-Members	...	...	1	1	0	15	15	0
Members	...	...	2	2	0	31	10	0
Foundation Members	...	...	10	10	0	100	0	0
Founders, Contributions of	...		—			500	0	0
Universities, Societies, Corpor-								
ate Bodies, not less than	...		2	2	0	—		

15. All Subscribers will be entitled to receive annually the Report of the School, informing them of the progress of investigation and study and the statement of accounts. Associate-Members will be entitled to receive the scientific publications, periodical or other, at a reduced rate. All other Members, including subscribing Universities, Societies and Corporate Bodies, will receive the periodical scientific publications free of cost, and other special publications at a reduced price.

All publications will be sent free of cost to :—

- (a) Founders and Foundation Members ;
- (b) Universities and Learned Societies, as hereafter defined, subscribing annually £20 and over, and
- (c) Other Societies and Corporate Bodies subscribing annually £50 and over.

16. The Publication of Monographs or a Periodical Journal shall be part of the programme of the School.

17. An Editor of Publications shall be appointed by the Council, to which he may refer on any question of difficulty.

18. Each subscribing University, Society or Corporate Body shall nominate in writing their Representative, who shall have the rights of attending and voting as a Subscribing Member. Such representative may be changed by the said University Body or Society at any time during the term covered by its subscription.

19. Each Subscriber of one guinea and upwards shall have one vote during the currency of his subscription at any Meeting of Subscribers.

AUDITORS.

20. The Subscribing Members shall annually elect two Auditors of the School's accounts.

TRUSTEES.

21. The property of the School shall be vested in two Trustees to be appointed from time to time by the Subscribing Members. The Trustees shall be ex-officio Members of the Council, and shall have access at all times to the School, its files, materials and accounts, but they shall not act as auditors.

DIRECTOR.

22. The Director shall be appointed by the Council on terms to be arranged by them.

23. The Director shall be responsible for the conduct, establishment, management, organisation and discipline of the School in Jerusalem, it being clearly understood that questions of political or religious controversy shall not be the subject of public discussion within the precincts of the School. He shall report to the Council, whose written instructions to him shall be final.

24. The Council may determine from time to time the special functions and discretionary powers of the Director.

25. Scholars of either sex pursuing some research in connection with the School who have received the written invitation of the Director, subject to the confirmation of the Council, shall be accorded the privileges of the School without payment of fees.

HONORARY ASSOCIATES.

26. Honourary Associates may be appointed by the Council from among foreign scholars desirous of entering into and maintaining relationship with the School.

27. Honourary Associates shall be appointed for life, but the appointment shall be terminable at the discretion of the Council.

STUDENTS.

28. Applications to be admitted as Students shall be addressed to the Honourary Secretary. The qualifications of applicants of either sex to study in the School shall be approved by the Chairman and three, at least, of the Council, and their names shall be reported to the Council.

29. Approved Students shall pay an annual fee of £10, payable in advance, the first payment to be made on admission. The Council shall have power to remit fees at its discretion. In the case of holders of Scholarships or those whom the Council on report from the Director shall elect as honorary students, no fees shall be payable. For each subscription of £20, a University or other Learned Society, and for each subscription of £15 any other Corporate Body, shall be entitled to nominate a Student, subject to his being approved by the Council. Such student shall, in respect of each £20 or £50 subscribed, be deemed to be the holder of a scholarship for one year without payment of fees. The scholarship shall have attached to it the name of the subscribing Body or Society.

30. Unless otherwise decided by the Council, Students shall be responsible for their own travelling arrangements and maintenance.

31. The Director shall be responsible for the proper organisation of students' studies, and for their special guidance. Students may submit to the Honorary Secretary for investigation by the Council a statement of any complaint against the Director. If any such complaint is found to be groundless, the complainant may be expelled from the School, in which case he shall sacrifice any fees already paid or in arrear.

32. The Director shall have full control in all questions of discipline and order, with power to suspend refractory or unsatisfactory students.

HOSTEL.

33. The organisation of a Hostel for Students in Jerusalem shall be part of the programme of the School.

LIBRARY AND RECORDS.

34. The Library and Scientific Records shall be accessible to all Associates, Students and Members, and to Members of Associated Schools.

ALLIED SCHOOLS.

35. Associated Schools shall be the French School or Institute for Archæological Studies recognised by the Academie des Inscriptions et Belles Lettres, and the American School of Oriental Studies established in Jerusalem, and any other School established in Jerusalem for Archæological Studies co-operating with the British School under arrangements approved by the Council.

36. (a) The expression Universities where used above means all recognised Universities of the British Empire.

(b) The expression Learned Societies where used above includes :—

1. The British Academy.
2. The Palestine Exploration Fund.
3. The British Museum.
4. The British School of Archæology at Athens.
5. The British School of Archæology at Rome.
6. The Society of Antiquaries of London.
7. The Hellenic Society.
8. The Egyptian Exploration Society.
9. The Royal Asiatic Society.
10. Such other Societies and Institutions as may be approved by the Council.

FINANCE.

37. The Banking Account of the School shall be placed in such name or names as the Council shall from time to time direct, and in the absence of such direction, shall be in the name of the Treasurer.

38. All money received on behalf of the School, unless specially allotted by the donor to a particular object, shall be applicable to any of the objects of the School, according as the Council, subject to any special directions of a General Meeting of Subscribing Members shall decide.

39. All moneys received by the School beyond what are required for current expenses or moneys, the principal of which is required by the donors to be invested, shall be invested in the names of the Trustees, and in such securities as shall be approved by the Trustees.

40. The Council, subject to the approval of a General Meeting of Subscribing Members, may revoke or modify any of these Ordinances or may enact additional Ordinances, and in particular may vary the objects of the School and may amalgamate with or enter into any other relations with any other institution or body.

REVIEWS.

Beth-Pelet I. (Tell Fara). By Flinders Petrie, Kt., with a chapter by Olga Tufnell. 26pp. and lxxii plates. London: British School of Archæology in Egypt and Bernard Quaritch.

This is an account of two years' digging (1928-1929) by Prof. Petrie and his School at Tell Fara, a site in the Judæan wilderness, 18 miles S. of Gaza on the west bank of the Wady Ghuzza. It is a low hill, some 600 feet long and 200 feet high, formed of 100 feet of natural marl, with another 100 feet of ruins of various periods above.

The hill side above the stream bed and also the flanks of the ravines to north and south of it have been scraped down to a smooth surface to render them difficult to climb, while on the west side, where the hill sinks gently down into the plain, a great trench, 80 feet wide, now deeply sanded up, was dug and its inner bank, at an angle of 33° , ended in a 7 foot drop to narrow ditch from which rose the outer bank, shorter and at a somewhat steeper angle. These glacis in the marl with a double wall at the top must have made a formidable obstacle to an attack.

The similarity in plan to the forts at Tell el-Yahudieh and Heliopolis enabled the excavator to attribute this construction to the Hyksos. A cemetery of the period close by supported the dating and no adverse evidence appeared.

Inside the fort a later block of brick construction was identified as the residence of the Egyptian Governor in the XVIIIth Dynasty, a second, unexpectedly massive, as due to Shishak, a third to Vespasian. On the surface are the trenches used during the late war by the Turks and afterwards by the Australian troops.

To Vespasian is also attributed a massive revetment in the bed of the wady, 300 feet long and in places 30 feet thick, built to protect the fort from the scouring action of floods: in the concrete of the core of this wall there were some scraps of 1st century pottery.

The number of small antiquities as yet found inside the fort is curiously small: the cemeteries near by proved more productive, especially that of the Hyksos from which an interesting series of scarabs were recovered, no less than 150 in number. Of these

some were plainly of Egyptian origin, others Palestinian imitations, and the groups could be arranged on stylistic grounds in order of time. The earlier proved to be of XII Dynasty types, the later XIIIth: this is well explained if the XVth and XVIth Hyksos dynasties were contemporary with the XIIIth and XIVth of Egyptians.

In the Philistine cemetery were several of the characteristic painted pots with swan ornament, scarabs mostly dateable to the 14th century (one especially interesting depicting a Syrian god attacking the uraeus), a steel dagger with cast bronze handle and pottery coffins with half-lids very roughly simulating human heads.

But, perhaps, the most important single object came from the fort, from the XIXth Dynasty Residence where was found a band of incised ivory, once inlaid in a box, broken into a large number of pieces and only recovered by careful digging and restoration. The drawing represents the governor seated and drinking wine, also scenes of marsh life, bird trapping, cattle, etc., all in a style founded on the Egyptian, but markedly un-Egyptian in detail. The artist was acquainted with both Egyptian and Minoan work.

Tell Fara is identified by Prof. Petrie with the Beth-phelet mentioned in lists of place-names in Joshua and Nehemiah, his acute and practised judgment may well have led him to the correct conclusion, but the argument, on pp. 1, 2, philology and geography, will seem to many precarious. Further digging will no doubt decide.

The 72 plates depict, in photographs or in clear outline, every scrap of useful material found. The pottery is catalogued by the members in Duncan's *Corpus*.

Paterson of Hebron. By the Rev. W. Ewing, M.C., D.D. Pp. 256 :
8 pages of illustrations. London : James Clarke & Co. 8s.
1930.

This volume, presented by the Publishers to our Library, is rather out of the usual character of books reviewed in the *Quarterly Statement*. At the same time, it gives most graphic descriptions of the life and customs of the inhabitants of one of the most exclusive and backward cities in the Near East. Dr. Paterson came to Hebron as a medical missionary in 1893, with a knowledge of Oriental ways and a facility in the use of conversational Arabic, such as few

have. He was thus enabled to enter into his work, and gain touch with his patients and their lives and their thoughts in a remarkable way. The narrative is here graphically told. All those interested in modern, pre-war, Palestine will find much of interest here. Unfortunately, after the war, the U.F. Church of Scotland reluctantly decided—in 1922—to curtail their work, and Dr. Paterson had to leave. A most important factor in the pacification of the country was thus unfortunately lost. On leaving, Dr. Paterson had the gratification of receiving a beautifully illuminated address designed as “Some token of the affection and esteem in which” he was regarded. It runs “All of us know the debt which the people of Southern Palestine owe to your unfailing care, your untiring zeal and unswerving devotion to duty. For twenty-nine years you have freely spent and been spent in the service of your fellow-men in this part of the country. Your name is a household word in hundreds of families from Jerusalem to Beersheba and even farther afield.” This was signed by Sir Herbert Samuel, Sir Wyndham Deedes, Sir Ronald Storrs, Mr. Norman Bentwich, Professor Garstang, and many others. All those who read the pages of this book will realise the truth of these remarks. It is good to know that the Hospital which Dr. Paterson began—with many difficulties and discouragements—is being carried on under the Anglican Bishopric as St. Luke’s Hospital.

E. W. G. M.

The Romance of Archæology. By W. H. Boulton. Pp. 246: 82 illustrations. London: Sampson Low, Marston & Co., Ltd. 6s. 1930.

This book is an attempt to interest the general public in a subject which is as full of fascination and romance as any history can be. The time of publication is opportune, as an ever-enlarging public are interesting themselves in the lessons of the past, and fresh discoveries are being made in ever-widening fields.

The author has necessarily had to confine himself to certain well-known discoveries, some of which have formed the stepping-stones to all our later knowledge. It is thus appropriate that the Rosetta Stone—one of the treasures of our British Museum—should figure at the beginning. The history of Egyptian discoveries is traced from Young and Champollion and Belzoni down to the recent work at Tell Amarna and the exploration of the Tomb of Tut-ankh-Amen. In the same way, exploration in Assyria and Babylonia is

sketched out from Sir Henry Layard, George Smith's work in Assyria, and down to Woolley's work at Ur. Special reference is made to the treasures in the British Museum. Of the work in Palestine, special mention is made of the Siloam tunnel and inscription; there is a scanty sketch of the various excavations at Gezer, Beth Shemesh, Beth Shean and Jericho. In connection with "Warren's Shaft," there is a curious mistake in the statement that Professor Macalister climbed up to it from the tunnel, as Joab did. Some members of the Parker expedition did so, but not Macalister, who was content to traverse the equally interesting, but less dangerous, "Siloam tunnel."

The remaining chapters refer, necessarily somewhat briefly, to Schliemann's work at Troy, to discoveries at Crete and Pompeii, and—a mere sketch—to Roman Britain.

Altogether, the author has succeeded in pointing out the "Romance" of Excavation, and doubtless it will stimulate many to visit our museums and to seek more detailed information on the subjects here touched upon. The volume is profusely and excellently illustrated, and it is a marvel of cheapness. It would form a most attractive gift to intelligent young folks who wish to make a beginning in a study of archæology, especially that of the ancient civilisations of the Near East.

E. W. G. M.

The Religion of Ancient Palestine in the Light of Archaeology. By Stanley A. Cook, M.A., Litt.D. The Schweich Lectures of the British Academy, 1925. Oxford University Press. 12s. 6d. 1930.

In 1908 the late Canon Driver delivered the first of a series of Schweich Lectures, taking as his subject *Modern Research as Illustrating the Bible*. Exclusive of the preface and indexes, these lectures form a modest volume of 92 pages. The book before us, on a subject not absolutely identical though closely analogous, with the like exclusions, covers 230 pages; so much has knowledge grown within the first quarter of the present century.

A work of this kind, tightly crammed with facts, is a reviewer's despair. It is itself a review of a long series of volumes; and there are few tasks more difficult than to summarise a summary. Practically the whole book is a statement of the results of field work, the literary evidence is left on one side, of set purpose, except for occasional illustration.

The matter is divided into three chapters, headed, respectively,

"Miscellaneous Examples," "The Old Oriental Period," "The Græco-Roman Age." The first is of the nature of a preliminary course of *hors d'œuvres*, passing rapidly in review a number of miscellaneous subjects such as cup-marks, altars, ceremonial steps, baetyls, animal deities, god-kings, life-symbols, etc. The second requires very close and attentive reading, if the student is to be piloted, with profit to himself, through the bewildering mob of Semitic gods and goddesses, their names and their cults. The third is a most fascinating study of the interaction of West and East, tracing the strange consequences that resulted from the marriage, if so we may express it, of deities from Western Asia, on the one side, and from Europe on the other.

Dr. Cook's name is a guarantee of sound scholarship. The footnotes and the list of authorities show an astonishing width of reading. The few points in which we would venture to express disagreement are hardly worth mentioning. The *Spiegelschrift* on certain Rhodian handles (p. 4) is probably nothing more than carelessness on the part of a die-sinker, who forgot that he had to reverse the lettering on a seal in order to produce a direct image. Is it certain that the Zorah "rock-altar" (p. 15) is anything more than mere quarry-waste? And is it certain that the Holy Rock at Jerusalem (of which a very unusual view is shown, Plate II) has not been hacked about out of all recognition, during the many vicissitudes of the Temple Hill? The printer's treatment of the word *Sagittarius* on p. 101 is injudicious. The *oscilla* (p. 201) were from Tell es-Safi, not Tell Sandahannah; and Marissa cannot rightly be said to be *opposite* the latter site (p. 202)—Tell Sandahannah, so far as we can judge, *is* Marissa, but its painted tombs, without the city, are on the other side of one of the surrounding valleys.

As of special interest may be mentioned the analysis of the animal frieze at Gezer (p. 75); the prudent examination of the evidence for human sacrifices* (pp. 82 *sqq.*); the review of the deities of the Hebrews of Elephantine, especially in the note beginning on p. 149; the destructive criticism of speculations as to the meaning of the pillars of Edessa (p. 177)—but it is needless to continue the enumeration: the whole book is "of special interest." There is a long series of well selected illustrations. R. A. S. M.

* Were I *now* reporting on the Gezer excavation for the first time, I think I should express myself on the subject of the jar-buried infants with greater caution. For me as for other students much water has flowed under the bridges since the (now comparatively remote) days of work at Gezer.

THE
PALESTINE EXPLORATION FUND,

NOTES AND NEWS.

ANNUAL GENERAL MEETING.

The Annual General Meeting will be held on Thursday, June 18th, at 4.30 p.m., at the Rooms of the Society of Antiquaries. The Bishop of Gloucester (the Rt. Rev. A. C. Headlam, D.D.) will preside.

An interesting point has arisen between Father Vincent and Professor Garstang as to the date of the destruction of Jericho. Their communications will be found below, pp. 104 sqq.

The Eighteenth International Oriental Congress will be held in Leiden, September 7-12, 1931. The fee for membership is £1 (or 12 florins), and 10s. (or 6 florins) for associates. Enquiries should be addressed to the Secretary, Musée Ethnographique, Rapenburg, 67/69, Leiden.

Annual No. 5 (see advertisement on back cover of *Quarterly Statement*) contains Mr. Crowfoot's report on his work at Ophel and the Tyropoeon Valley during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the building and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letterpress and an index. Price 31s. 6d. to non-members.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with the Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The new plan of Jerusalem on a scale of approximately 1 : 5,000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5s. ; mounted on cotton and folded to size 8 × 6 inches, price 9s. The latter form is the more convenient, as owing to its size the unmounted sheet cannot be sent through the post without a fold.

The library of the Palestine Exploration Fund contains some duplicate volumes. They may be purchased, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found on p. 56.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions from:—

	£	s.	d.
Cole, S. C., Esq.	0	10	6
Courthope, Miss E. M.	4	0	0
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The following is a list of the members who have generously responded to the appeal which is being made for increased subscriptions:—Annett, E. A., Esq.; Armagh Library; Bayley, Arthur, Esq.; Bodding, Rev. P. O.; Brown, James R., Esq., Jr.; Butler, Miss M. P.; Campbell, Mrs. Lamont; Close, Sir Charles; Colbeck, Rev. Alfred; Copenhagen Royal Library; Cowley, Dr. A. E.; Crace, Mrs.; Crompton, Miss; Curwen, Dr. Eliot; Custos, Most Rev. Fr.; Driver, G. R., Esq.; Durham College; Edinburgh University; Egan, Rev. Fr. Andrew; Elmslie, Prof. W.; Evans, Edward, Esq.; Farmar, Miss; Finn, Miss; Fitzpatrick, Rev. Prof. T. C.; Gardiner, Dr. A. H.; Gibson, Mrs.; Hague Royal Library; Howlett, C. E., Esq.; Hudson, Rev. W.; Hyde, Sir Charles; Jackson, Lady; Jones, Herbert, Esq.; Knapton, Rev. A. J.; Leeds Library; Leng, J. A., Esq.; McLean, N., Esq.; Mills, Col. D. A.; Nash, Rev., G. D.; Orr, William, Esq.; Taylor, Gilbert J., Esq.; Thacker, Miss E. M.; Tombleson, John, Esq.; Tudor, O. S., Esq.; Senior, Col. H. W. R.; Smith, Rev. Sherwin; Strickland, Miss A. J.; Sulley, Henry, Esq.; Walker, William, Esq.; Walter, Miss C.; Dr. Williams' Library; Williams, Major C. S.; Wilson, Dr. C. Stacey.

The *Annual Report of the Palestine Exploration Fund*, with Accounts and List of Subscriptions for 1930 is issued with this number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an Index, 1869-1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £15 15s. Subscriber's price £14 14s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5 except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund (see address on cover).

The Committee have to acknowledge with thanks the following :—
Topocadastral Map of Palestine, Scale 1' : 20,000, Sheet 11-12, Hamāme.

Churches at Jerash : a preliminary report of the joint Yale—British School expeditions to Jerash, 1928-30. British School of Archæology in Jerusalem ; supplementary paper, 3. By J. W. Crowfoot, C.B.E., M.A., Director, B.S.A.J., and Field-director of the joint-expeditions to Jerash.

The Near East and India. January 15 : report on the Second International Congress on Persian Art. (Accounts of the Persian exhibition and lectures on Persian and Saracen Art.)

Annual of the British School at Athens, No. xxix. Excavations at Sparta, 1924-28, by A. M. and J. M. Woodward, and L. Robert, two prehistoric sites in Chalcidice, by W. A. Heurtley and C. A. R. Radford, etc.

The Expository Times. January : the star Hēlēl, Jupiter, by S. H. Landon ; the wailing wall at Jerusalem, by Rev. W. M. Christie. February : Recent foreign theology. Rev. J. W. Jack,

The Antiquaries Journal. January.

The Scottish Geographical Magazine. January : Locusts in Iraq, by K. Boog Watson.

The New Judaea.

The Topography and History of Beth-Shan. i. by Alan Rowe ; *The Four Canaanite Temples of Beth-Shan.* ii. part 2 : the pottery, by G. M. Fitzgerald, 1930. Publications of The Palestine Section of the Museum of the University of Pennsylvania.

American Journal of Philology. li. 4.

Geographical Review (New York). January. Northern Anatolia, by E. Nowack.

Bulletin of the American School of Oriental Research. December.

The Museum Journal (Pennsylvania). xx. 2: Excavations at Ur, by C. L. Woolley.

Bulletin of the Metropolitan Museum of Art. Nos. 11, 12; and *The Museum's Excavations at Thebes*. January, No. 1: Near Eastern Art. *Journal of the American Oriental Society*. December: and possible connection between the Mitannian and Dravidian languages, by G. W. Brown.

Jewish Quarterly Review. January: a fifth MS. of Ben-Sira, by J. Marcus.

Homiletic Review. February.

Journal Asiatique. January-March: the problem of the Achaeans of Asia Minor, by Raymond Weill; Sumerian sacrifices, by C.-F. Jean; Indo-Iranian castes, by G. Dumézil.

Syria. vi. 3. Four Palmyrene busts, by H. Ingholt; Kanata and Kanatha, by M. Dunand; Asiatic axes, by R. Dussaud, etc.

Revue Biblique. January. Gaza in the VIth cent., after Chorikios, by F.-M. Abel; a Christian inscription from Ghôr el-Safy, by the same; a first translation of the Phœnician texts of Ras Shamra, by P. Dhorme; the monuments of Kubeibe, by P. H. Vincent.

Corpus Inscriptionum Semiticarum. Part iv., vol. 3. Tables, xxxvi-1. *Zeitschrift des Deutschen Palästina-Vereins*, liii. 4. The boundary between Ephraim and Manasseh, by K. Elliger.

Archiv für Orientforschung, vi., 2-3. Studies in Old Oriental art, by D. Opitz; Solomon's temple, by C. van Gelderen; seals and scarabs, by A. Procopé-Walter.

Orientalistische Literaturzeitung, December, 1930. The non-Greek inscriptions of Amathus, by H. Pedersen. Among the reviews: W. Schubart on *Das englische Weltreich*, Sittig on Randall-MacIver's *Etruscans*, V. Müller on Pendlebury's *Aegyptiaca*, and on L. Carton, *Sanctuaire punique, découvert à Carthage*.

Mitteilungen d. Deutschen Archäolog. Instituts. Athen. abteilung, lv., 1930. Heraion of Samos, by Ernst Buschor.

Biblica, Oct.-Dec. The meaning of *prototokos*, after a Jewish inscription, by J.-B. Frey; the historical background of Judges, iii., 8-10, by H. Hänsler; the chronology of the walls of Jericho, by A. Mallon.

Bollettino dell' Associazione Internazionale per gli studi mediterranei, i., 5. Secondo numero Virgiliano.

Archiv Orientalni. Journal of the Czechoslovak Oriental Institute, Prague; ii., 3.

The Journal of the Palestine Oriental Society, x., 2-3. Excavation of

Shiloh, by Hans Kjer; two phalli, by A. M. Schneider; pre-Davidic Jerusalem, by B. Maisler; additions to Petra-studies, by T. Canaan; 4: notes on pre-historic Palestine, by R. Neuville; a Samaritan inscription from Kafr Qallil, by I. Ben-Zevie.

La Revue de l'Académie Arabe (Damascus).

Al-Mashrik, Jan. Excavations at Apamea, by F.-E. Boustany.

Bible Lands, Jan. Mosaic stones (the Madeba map), by C. T. B. Zion.

From Mr. Pilcher: *Journal of the Royal Asiatic Society*.

See also below p. 104.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books:—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864); published about 1874.

K. von Raumer, *Der Zug der Israliten*. (Leipzig, 1837).

Lagarde, *Onomastica Sacra* (1887).

Le Strange Palestine Under the Moslems (1890).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson.

Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath* already in the Library; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

FORM OF BEQUEST TO THE PALESTINE EXPLORATION FUND.

I give to the Palestine Exploration Fund, London, the sum of——— to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

NOTE.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

EXCAVATIONS AT BETH-SHAN IN 1930.

By G. M. FITZGERALD, M.A., *Field Director*.

IN the middle of September, 1930, work was resumed at Beth-Shan (Beisan) on behalf of the Museum of the University of Pennsylvania. Reports of the excavations carried out in the years 1925 to 1928 by Mr. Alan Rowe (who is now digging in Egypt) have appeared in the *Q. S.*,¹ and a preliminary volume² has recently been published containing a description of the site and a summary of its history.

1. *The Cemetery.*

The excavations of the past season were begun in the cemetery area, situated on the northern slope of the valley of the river Jalud. This slope is honey-combed with tombs, and is crowned by a section of the wall which enclosed the whole town in its last period of greatness, before the Arab conquest of A.D. 636. Beth-Shan, under its Greek name, Scythopolis, had by that time grown to be one of the richest and most important of Palestinian cities. Many of the tombs in this cemetery, however, are of much greater antiquity and belong to the centuries during which the occupation of Beth-Shan was confined to successive Bronze Age and Iron Age settlements on the mound of Tell el-Hosn.

The cemetery extends for a long distance down the valley, and only a relatively small portion had been excavated in previous seasons (1922 and 1926). The experience gained in those seasons led us to expect that we should find a great number of tombs crowded together, ranging in date from the Early Bronze Age to the eve of the Arab conquest, and thus covering a period of some 3,000 years. Unfortunately the limestone marl composing the hill-side was just hard enough to enable the tombs to be cut into it without the aid of supporting masonry, but has proved too soft to endure to the present day. In consequence the roof of every one of the tombs has either partly or wholly collapsed. About half-way up the slope a veritable land-slide seems to have taken place, probably as a result of the shock of some earthquake. It appears that at this level a

¹ *Q.S.* 1927, 1928, 1929, in the April number of each year.

² *The Topography and History of Beth-Shan*, by Alan Rowe. (Philadelphia, 1930.)

number of Early Bronze Age tombs, of circular form, had been cut side by side. It is probable that these had been re-used, and perhaps somewhat altered in shape, for burials of the Early Iron Age, and at a much later date Byzantine tombs of the arcosolium type had been cut in amongst them; it is not to be wondered at, therefore, that the tomb-walls should have proved unequal to the task of supporting the earth above them.

As a consequence of the disturbance of the earlier tombs in our area, comparatively little was found in the way of objects of the Bronze Age. One tomb yielded several flat-bottomed jars with ledge handles, of which one had a combed surface, and most had a row of diagonal hatchings (or rope ornament) round the neck. With them were associated tanged javelin heads of bronze, triangular in section. The Iron Age burials, which seem to have intruded into the earlier tombs, are those associated with the "slipper" type of clay sarcophagus, having a lid in the form of a human face, such as has been found in previous years in the cemetery of Beth-Shan.³ These sarcophagi have also been found in the Nile Delta, and at Beth-Pelet in southern Palestine, where they are associated with the so-called "Philistine" pottery.⁴ Five sarcophagi were found during the past season lying on a ledge of rock, which had evidently formed part of a tomb of which the roof and sides had collapsed. They were all broken and had doubtless been disturbed; some rude terra-cotta figurines were found in one of them, and several stirrup vases and lentoid flasks lay close by, but only one scarab (bearing the figure of a hawk) and a single carnelian bead had escaped the notice of the tomb-robbers. Elsewhere only fragments of ledge handles and of clay sarcophagi appeared to testify to the presence of Bronze Age and Iron Age burials.

Of the thirty tombs excavated in the past season, by far the greater number were of Roman or Byzantine date. The earlier type consisted of a central chamber, usually rectangular, but sometimes circular in plan, with *loculi* leading out of it. Not infrequently the burials were in large stone sarcophagi, of which some were placed inside loculi, while others stood in the central chamber. The weight of the sarcophagi was often too great for the floor on which they

³ *Q.S.* 1927, p. 75.

⁴ Petrie, *Beth-Pelet* I, Pl. xxiv.

stood; in two instances those from one tomb had fallen through amongst those of another cut into the hillside at a lower level. Unfortunately all these sarcophagi had been broken into by tomb-robbers, and little that was of value remained in them, with the exception of a certain number of gold earrings. The entrances to the tombs are usually of basalt masonry; the lintel and threshold stones have cup-shaped hollows (usually shallow in the threshold), into which fitted the projections on which the doors revolved. Two bronze door-sockets were found, one of them being *in situ* in the threshold of a tomb. The ordinary method of fastening the door seems to have been a wooden bolt engaging in a basalt lock, built into the masonry of the door-jamb. Most of the doors are of plain limestone; one bears an inscription in Greek ΝΟΣ ΤΟ ΑΓΟΡΑΣΜΑ ΑΜΟΤΣ apparently signifying that the tomb was the property of one Amos or Ammon. One of the tomb doors, unique as far as this cemetery is concerned, is of basalt, and is carved to represent a panelled wooden door studded with metal bosses and having a ring attached as a handle or knocker. The tomb to which this door belonged was of the later type, with arcosolia; it had plastered walls, on which there remained traces of painted decoration, red bands and festoons, but no figures or inscriptions. Another unusual feature of this tomb was that the graves in it had been covered with slabs of pottery, but these had been moved when the tomb was broken into and looted.

In addition to the more elaborate tombs, the cemetery contained a number of plain graves, each just large enough for a single burial, and covered over with roughly shaped stones, flat below and convex above, of just sufficient length to span the width of the grave. It seems not at all improbable that wooden coffins were used for the interments in these graves, for although the wood had perished, we frequently found bronze rings which might perfectly well have served as handles for the coffins. Each ring had been attached to the loop of an iron staple on the shank of which, in several instances, traces of wood could be seen. The ring handle itself seems to have lain against a thin bronze plate, attached to the coffin, with a round boss projection just fitting into the ring. Smaller ring handles, associated with similar bosses just fitting into them, doubtless belonged to wooden boxes or caskets which formed part

of the grave furniture. One grave, of unusual depth, seems to have had two burials, one above the other; it contained, among other bronze fragments, two stirrals and a small nude figure, which may have been an ornamental handle. With these were the remains of an iron knife-blade in a wooden sheath, with a bronze tip and bands of the same metal along its edges.

In spite of the systematic looting of the tombs, the cemetery yielded a great number of small objects. Roman and Byzantine lamps were very numerous, some of the former having moulded figure decoration upon the *discus*. In terra-cotta we found a graceful figurine, which may be a type of Aphrodite, and also the figure of a cock. Besides the metal objects already mentioned were numerous bracelets, small bronze crosses and bells, with loops for suspension, locks, keys, buckles, and a fibula. A series of small bronze objects, which had apparently been covered with gold-leaf and which bore similar fleur-de-lys decoration in relief, would seem to have formed the ornament for some sort of trappings, possibly a set of harness, some of them being like small shields with loops at the back, between which a strap or metal band might run, and others being adapted for the tip of a strap to fit into.

Two out of a number of ivory whorls were found with spindles of the same material running through them. Together with a quantity of fragmentary glass a few good pieces were found unbroken, and beads of glass were numerous, among others of amethyst, carnelian and various pebbles. Most of the coins, being of bronze, were much corroded, and had become almost indecipherable, but a notable exception is an early Arab gold dinar found near the surface of the ground in the cemetery area.

II. *The Monastery of Lady Mary.*

During the first four weeks of the season our excavations in the cemetery had proceeded with satisfactory results, but without adding greatly to the archæological information obtained by work in the adjoining areas during previous seasons. Having made a beginning with the lowest tombs, we had been working upwards towards the crest of the slope and were preparing to continue our explorations upon a stretch of flat ground as far as the bank of earth which marked the line of the town wall, when on October 14th, we made the quite unexpected discovery of a wide doorway opening into an area, with a floor of mosaic pavement. This floor-level was

but little below the surface of the ground, and in a short time we were able to complete the excavation of the building, which we must now proceed to describe.

The main entrance, which was our first discovery, leads into the southern end of a hall or court (for it can scarcely have been roofed over) about 15 metres long from north to south, and about 9 metres wide, but narrowing somewhat towards the north. The entire floor is covered with mosaics of which the most interesting feature is a large circular panel (Plate I), in the centre of which are two busts representing the sun and moon, the former crowned with golden rays, the latter with a crescent upon her head, each holding a flaming torch. Round them are twelve figures, full length, of men engaged in various occupations, each symbolising one of the months, of which the name is written in Greek at the foot of the figure, together with the number of days in it (*e.g.*, ΜΑΡΤΙΟΣ ΗΜΕ̅ ΔΑ). In certain cases the precise intention of the artist is somewhat obscure, but some of the months are plainly represented by seasonal occupations, notably December by a sower scattering seed (at the upper right hand corner of the photograph). For February we have a man carrying an implement, fork or hoe, over his shoulder, for March a warrior leaning on his shield, for April a man carrying a kid (which is provided with remarkably long horns). The figure representing May wears a long cloak or vestment which he is holding up in front, and in the folds of which rests what appears to be an offering of fruit and flowers. The significance of this figure, as of several others, will probably become apparent when time allows a comparison to be made with other mosaics of a similar nature elsewhere. The colours employed shew a considerable range; various shades of red, brown, yellow and dark blue are freely used; occasionally, a vivid green is produced by the use of glass tesserae. The remainder of the floor of the court is filled with panels of which the larger contain birds and animals (we recognise the wild boar, gazelle, and hyena, and also a horseman shooting an arrow, and a hound wearing a collar), and the smaller pomegranates and other fruits. These panels are arranged on the basis of an octagon pattern which invites comparison with some of the recently published mosaics from Jerash.⁵

⁵ Crowfoot, *Churches at Jerash* (B.S.A.J. Suppl. Papers 3), 1931, pp. 42 sqq. and Plate xiii.

Just at the entrance of the court, at the top of the steps leading up from the main doorway, is a mosaic inscription, in memory of one Zosimus, who is given the title of Illustrious (Ἰλλουστρίου), and on behalf of John, an ex-prefect (ἐνδοξοτάτου ἀπὸ ἐπάρχων) and the Counts Peter and Anastasius and their house.

Another inscription containing a prayer for the same John is to be found at the north-east of the court, just at the entrance to a small square structure, which had been faced with marble, and in which there proved to have been a grave. This tomb had, unfortunately, been violated, but there were remains of bones in it, and two small bronze crosses, and a Byzantine coin cut down to make a square plaque.

A number of rooms opened out of the large court. At the west, one room of considerable size, with a floor of patterned mosaic, is divided into two unequal parts by projecting antæ. Between these is an inscription recording that the mosaic was completed in the time of the priest and Hegumen George. The title of Hegumen signifies that George was the abbot, or superior, of a monastery and is a clear indication of the nature of the building under discussion. The Rev. D. J. Chitty has pointed out to me that Cyril of Scythopolis, writing between the years 555 and 560, dedicated his work Ἀββᾶ Γεωργίῳ πρεσβυτέρῳ καὶ ἡγουμένῳ. If this is not the same man there must have been two of that name holding the same offices in or near Beth-shan at about the same time, for, as we shall see, the date of this inscription need not be far removed from A.D. 560. That the chamber with which we are dealing may have been the refectory is suggested by the fact that to the south of it is a room, paved with stone slabs and containing a circular oven, which may have been the kitchen.

To the north of the supposed refectory we found the remains of a mosaic at a slightly higher level than any of the other floors, with squares containing various geometrical designs. The southern portion of this floor would seem to have been destroyed, as its border is not continued all the way round, and moreover the edge of the mosaic cuts across part of a circular panel. It is possible that the "refectory" was at some period enlarged by the addition of the space north of the antæ, at the expense of the room next to it. It is not very clear why the floor of the northern room should have

been raised above the level of the rest of the building, but this is one of several questions which must remain unanswered owing to the obvious necessity of preserving the mosaics.

A small room north of the large court has a particularly interesting and elaborate floor, which is shown in Plate II. At its entrance is an inscription recording the completion of the work in the time of the priest Elias. Unfortunately the date, which was also given, is mutilated, and we only have the letter X, standing for 600 (with a stroke above it of sufficient length to include two other figures), and the year of the indiction, 2. If we suppose the inscription to have been dated by the Pompeian era, beginning about 64 B.C., it would seem that A.D. 553-4 (being the second indiction) is the earliest possible date for this mosaic. Another inscription, however, which we discuss below, makes it more probable that 568-9 is the year to which we ought to assign it.

As will be seen from the photograph, the mosaic consists of twelve circular medallions enclosed within the branches of a vine which issues from a vase, the intervening spaces being occupied with birds and animals, including a hare biting at a bunch of grapes; in one space a snake is seen. The figures in the medallions represent a variety of activities: at the top left-hand corner a man armed with shield and spear is hunting lions; at the other end of the same row a negro (dark brown tesserae being used to indicate his colour) leads an animal which at first sight resembles a camel, but which has a spotted hide and small horns, and is therefore more probably intended to represent a camelopard or giraffe. In the middle row we see a man seated and playing on a pipe while his dog sits up beside him. On the left of the lowest row a donkey is being led along, and the head of another appears in the damaged medallion on the right. In three others we see men with baskets cutting or carrying away the bunches of grapes which hang from the boughs of the vine.

The greater part of the monastery buildings lies to eastward of the court. Five rooms on this side have floors with patterned mosaics of a more conventional kind; two of these rooms were originally one, but have been divided by a later wall built over the mosaic floor. It should be mentioned that the walls of the entire building are of basalt masonry and show traces of having been

covered with a coating of plaster; only the small tomb already mentioned was faced with marble. "Hardly any of the walls have been completely destroyed, but only two or three courses of masonry have been left standing, the rest of the stones having been removed and doubtless used for later buildings: the result is that though the plan of the monastery is practically complete we have very little evidence concerning the superstructure. Access to the supposed refectory, as well as to the room facing it on the east of the court, was not through a door, but under fairly wide arches (or perhaps architraves), as in each case there is a row of stone paving-slabs interrupted by a square block of masonry upon which presumably stood a supporting column or pillar. A double door-way, of which the stone threshold remains in place, led from the latter room into the west end of the chapel, which occupies the north-eastern section of the monastery. Just outside this doorway is an inscription in mosaic containing a prayer for the Lady Mary (who, as we shall see, founded the monastery) and her son Maximus.

The chapel is a plain rectangular building, without side-aisles, having a semi-circular apse at the east end; its floor is entirely paved with mosaic. The apse, which is on the same level as the rest of the building, has an imbricated pattern-surrounded by a border of lotus-buds; the remainder of the chapel is paved with a scheme of medallions containing birds. These number no less than 82, and in spite of some repetitions, shew a great deal of variety; in many instances the designs are lifelike and well characterized. Conspicuous amongst them are the two peacocks, larger than the rest, near the west door (Plate III).

These bird mosaics occupy the whole width of the chapel at the west, but towards the east they are narrowed to the width of the apse, and the spaces thus left are filled by two very interesting inscriptions. The one shewn on Plate IV occupies the south-eastern angle of the chapel; its tenour seems to be as follows: "Where the wreathed cross is there lies the *πελλαϊκόν* (?) of the mouth of the tomb, having rings; and he who wishes removes the wreathed cross and finds the *πελλαϊκόν* (?) and buries (the dead.) But if the Lady Mary, the foundress of this church, or any of her family, wishes to be laid in this tomb, I, Elias, by the mercy of God a monk, in the name of the Father and of the Son and of the Holy Ghost,

curse [εὐλογῶ, by a euphemism] and anathematize any one after me that hinders her or any of hers, or that removes these my writings."

A full commentary upon the inscription must be reserved for a later publication; in the meantime, we may draw attention to one or two points connected with it. The meaning of the word *στεφανοσταυρί(ο)ν*, which has been translated "wreathed cross," was made clear by the discovery of part of a broken slab of marble on which is carved a cross surrounded by a wreath. This slab was lying just beside the inscription, but was not *in situ*, and it is impossible to be certain where it was originally placed. It has a fleur-de-lys carved on the reverse side (which is less highly polished than the face), and its appearance suggests that it once formed part of the closure of the choir. This closure, however, was certainly not of earlier date than the inscription, since it partly covered the last line of writing, making it necessary to remove two of the stones on which it was erected in order to take the photograph shewn in Plate IV. When the whole line of these stones had been taken up it was seen that at the end of the inscription there was a clumsily patched section of plain tesserae encroaching on the border of the main mosaic pattern. This provided an opportunity for further investigation, as a result of which it was ascertained that a plastered grave lay below the inscription, containing two skulls and other bones, but (as far as we could see without disturbing too much of the surface) no small objects of any kind. It is difficult to suppose that the inscription can relate to this grave, and we are thus left without a clue to the position of the tomb (*μνημ[ε]ῖον*) mentioned in it, or to what is meant by the word *πελλαϊκόν*.⁶

The author of the corresponding inscription on the north side of the church is the same monk, Elias. He begins by describing (in the same words as in the inscription with which we have been dealing) the entry to the tomb, and relates that he has there laid to rest his sister Georgia; the inscription then continues, in a different and larger script which shews that some alteration or restoration has

(⁶) It is perhaps derived from Pella, the name of a city of the Decapolis, lying just across the Jordan Valley. The context points to something like a stone door, but it seems hazardous to connect the word with *φellaτας*, *lapis pellates*.

taken place, as follows : " She died on the fourth (day) in the month of May of the fifteenth indiction. The day was (the feast of) Mesopentecost (ἡμέρα δὲ ἦν [τῆς μ]εσωπεντηκόστ[ης])"

The value of this statement, as has kindly been pointed out to me by Mr. Chitty, lies in the fact that it has enabled him to calculate the date of the event recorded. Mesopentecost is observed on the Wednesday of the fourth week after Easter⁷; when it falls on May 4th the date of Easter must be 25 days earlier, April 10th. Mr. Chitty has ascertained that the only 15th indiction during the fifth, sixth and early seventh centuries in which Easter fell on April 10th, was A.D. 567. In this way we obtain an approximate date for the completion by Elias of the floor in the small room with the figured mosaics (Plate II), and also for the foundation of the church by his contemporary the Lady Mary.

The objects found in the monastery, though not very numerous, were of considerable interest. The most notable of them was a long gold chain, perhaps a girdle, with a filigree medallion and flat leaf-shaped links bearing a faintly incised pattern. This was discovered, surprisingly enough, in a room adjoining the chapel of which the floor, consisting doubtless of stone paving, had been removed. Together with this chain were a gold bracelet, a bronze censer, and ten gold coins, belonging to the reigns of Maurice Tiberius, Phocas and Heraclius. This dating seems to indicate that the Arab conquest was the occasion for concealing the gold objects in this room, and it is, therefore, probable that the abandonment and destruction of the monastery must be referred to that event, since no evidence of a later occupation appears to exist.

Another object of interest is a lead plaque having on one side the figure of Our Lord, apparently treading upon the head of a serpent, with the inscription in Greek : "Emmanuel with us." (Plate VI, Fig. 5). The other side shows the Blessed Virgin standing in the attitude of prayer, and the words : Ἡ ἀγία Μαρία.

III. *Excavations on Tell el-Hosn.*

In November the workmen were transferred from the cemetery area to the Tell, which had been the principal scene of excavations in former years.

⁷ Du Cange, *Gloss. Gr.*

Readers of the *Q.S.* are doubtless aware of the fact that, since the clearance of the Byzantine levels over the greater part of the Tell, work has in the past been confined mainly to the smaller area in which Mr. Rowe has brought to light a notable series of Canaanite Temples extending back to the reign of Thothmes III, in the first half of the 15th century B.C.

It seemed that the time had come when the summit of the Tell should be cleared of the later buildings still left standing round about the temple area: consequently no attempt was made to excavate below the Thothmes III level. Owing to the depth to which the Byzantine builders had sunk the foundations of their stone walls the task of removing them was somewhat laborious, and indeed partook largely of the character of a preparation for the work of future seasons.

Nevertheless results were obtained which were satisfactory in themselves and held out promise of better things to come. By the end of 1930 we had cleared a considerable area down to the level of the two Canaanite Temples (the latest in date) which have been known since 1925 as the northern and southern temples of Rameses II. Though no striking finds had been made we had excavated a coherent series of buildings, apparently dwelling houses, with many rooms opening into one another and all partaking of very similar characteristics. The walls of the rooms are of brick, resting on one or two courses of large rough stones. Below the floor-levels of the rooms the bricks often seem to be partly baked and are light red in colour, but the walls rising above the floors are invariably of mud brick.

A discovery made in the last week of the season has compelled us to revise our views concerning the date of this level. The three large fragments of limestone which are shown on Plate V, Fig. 6 fit together to form the greater part of a lintel containing an inscription in Egyptian hieroglyphics. On the right we see the cartouches of Rameses III (c. 1204—1172 B.C.), flanked by the royal titles, with a figure kneeling in adoration before them. This figure, as the inscription informs us, represents a high official named Rameses-Wesr-Khepesh, already known to us from inscribed door-jambs found in 1925 and 1927,⁸ and believed from the circumstances

⁸ *Q.S.*, Jan., 1928, p.54; *Museum Journal*, Dec., 1927, p.436 sq.

of those finds to have been the builder of the southern temple of Rameses II—the "Temple of Dagon." It now appears that the career of this official belongs to the reign of Rameses III. Another question arises from the fact that the lintel found this season was directly below the stone foundations of a room which, though situated near the eastern edge of the Tell, apparently belonged to the same level as the temple which Rameses-Wesr-Khepesh is thought to have built.

This would seem to show that these rooms are not of such uniform date as the appearance of their foundations would suggest, for if the latest temples were built after the destruction of this lintel we should be compelled to assign them to a period subsequent to the downfall of the Egyptian domination in Beth-Shan, and this conclusion seems quite contrary to the evidence which has accumulated during the past seasons of excavations.

Along with the lintel of Rameses III were found several other hieroglyphic fragments of minor interest, one of which is shown in Plate VI, Fig. 7.



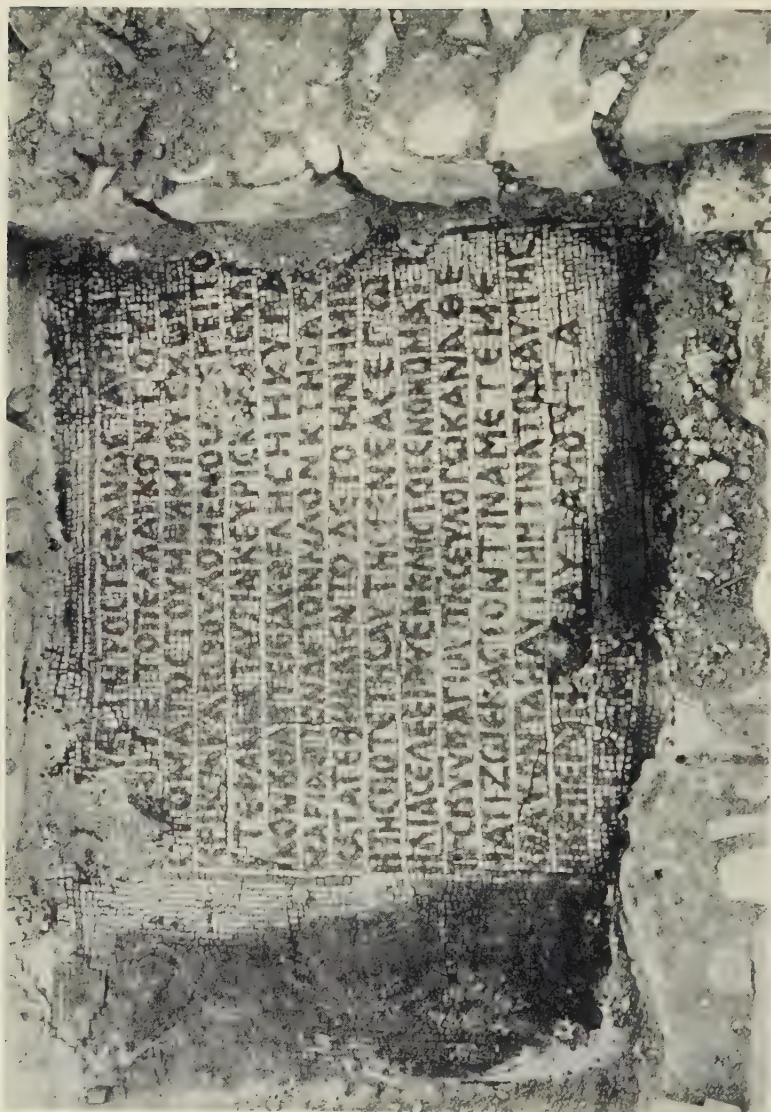
1.—BETH-SHAN. MOSAIC IN THE COURT OF THE MONASTERY.



2.—BETH-SIAN FLOOR OF A ROOM IN THE MONASTERY.



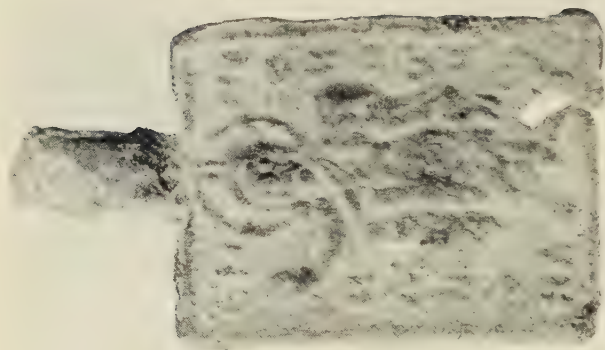
3.—BETH-SHAN. MOSAIC IN THE MONASTERY CHAPEL.



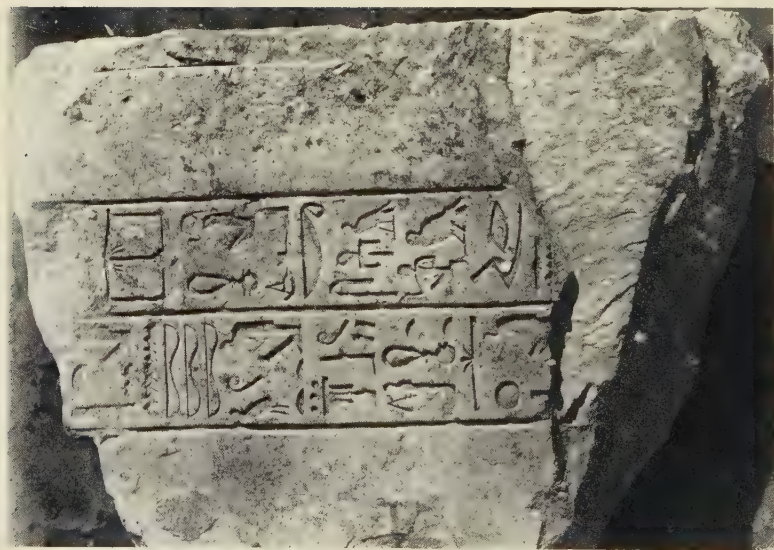
NASTERY CHAPEL.



6.—BETH-SHAN. LIMESTONE LINTEL WITH HIEROGLYPHIC INSCRIPTION.



5.—BETH-SHAN. LEAD PLAQUE.



7.—BETH-SHAN. FRAGMENT OF DOOR-JAMB WITH
HIEROGLYPHIC INSCRIPTION.

SHILOH.

A SUMMARY REPORT OF THE SECOND DANISH
EXPEDITION, 1929.

BY HANS KJÆR, M.A., DEPUTY KEEPER OF THE NATIONAL MUSEUM,
COPENHAGEN.

It will be remembered that the first Danish expedition to Seilun, the Palestinian site which is considered identical with the Shiloh of the Bible, was made in 1926. A preliminary report was given in the *Q.S.* in 1927, pp. 202-213. It will probably be remembered, too, that at this investigation we found a distinct settlement on the

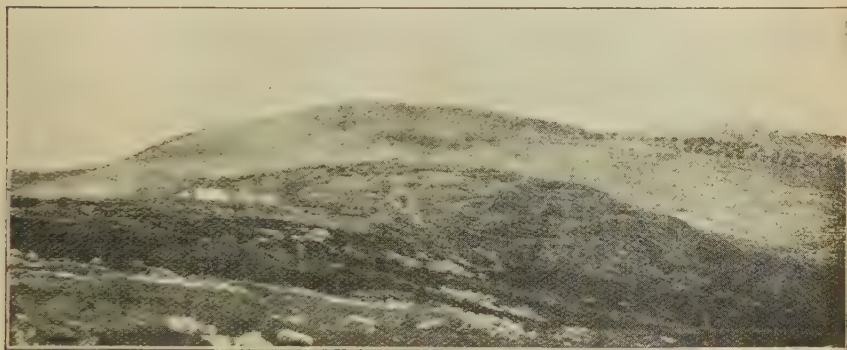


Fig. 1.—TELL SEILUN. LEFT, THE DANISH CAMP, SEEN FROM THE SOUTH.

Tell itself, covering a period from Hellenistic times to the Arab Middle Ages. But several traces seemed to indicate that there had been a settlement at a considerably earlier date. In the southern part of the plain an Arabian "open-air" Well was brought to light, placed in an as yet inexplicable cavity in the rock.

In 1929 the investigations were continued through the help of funds collected in the Danish community and in Jewish circles in Denmark. The members of the expedition were:—Director (as in 1926), the present writer (Hans Kjær, Deputy Keeper of the National Museum of Denmark), Dr. Aage Schmidt, biblical scholar, and Mr. Svend Beck, the architect. We had the good fortune to have

Shiloh 1929
Tell Seilun

Wadi Seilun

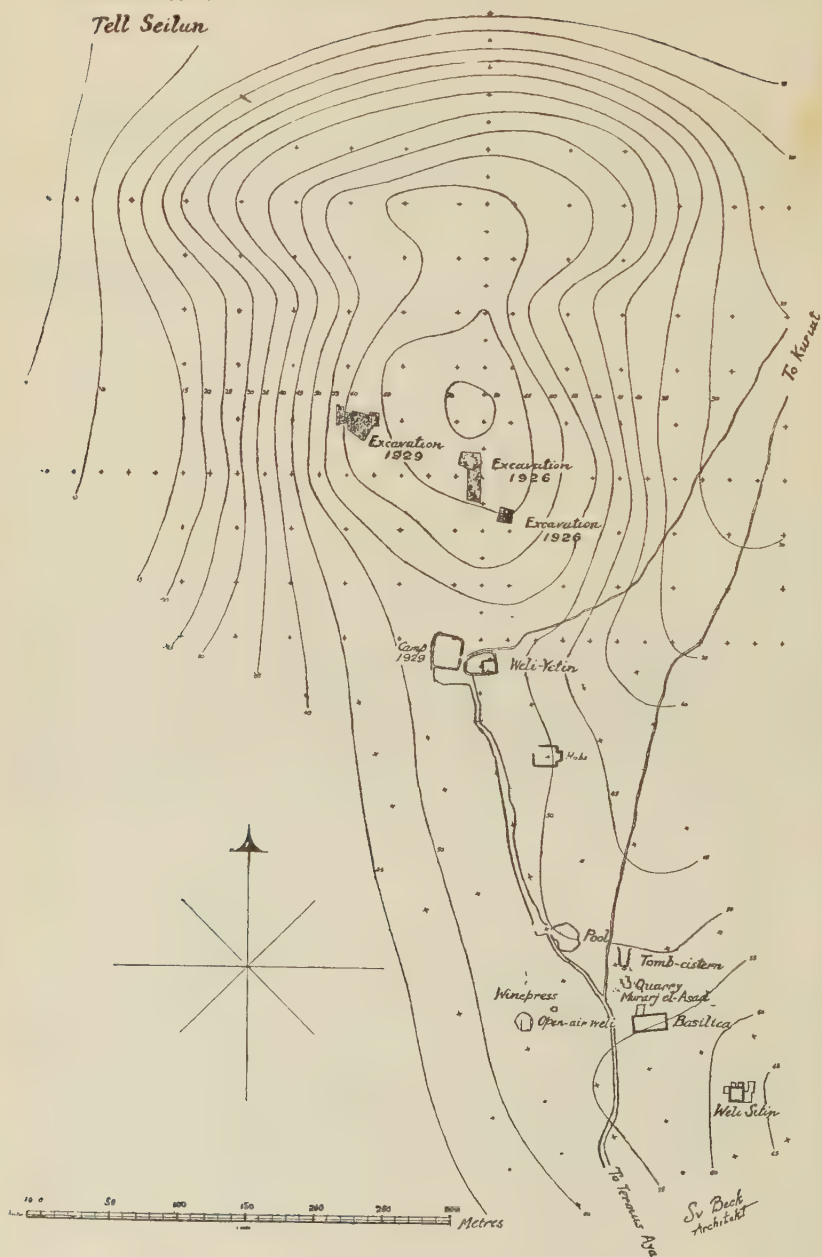


FIG. 2.—PLAN OF SHILOH. BY ARCHITECT SVEND BECK.

as general adviser Professor W. F. Albright, the Director of the American School of Oriental Research, Jerusalem. The Director himself attended to photographing, etc., at Seilun. The second campaign led to results of a considerable greater importance than the first one. This time we found it more expedient to camp on the site itself. The investigations were at once begun under the "Danebrog,"¹ which was run up over the camp in the beginning of the very cold month of March, 1929; and were then carried on to the end of May. See Fig. 2.



FIG. 3.—TOWN-WALL. ROMAN? PARTLY UNCOVERED.
IN FOREGROUND BURNT HOUSES FROM ISRAELITE TIMES,
ABOUT 1050 B.C.!

At the introductory examination of the site, made together with Professor Albright, we stopped at the western side of the Tell at the piece of wall which is seen partially uncovered in Fig. 3. Already in 1926 we had given our attention to this piece of wall, but had found it advisable to regard an investigation of this place as secondary, chiefly because some particularly large heaps of stones from late Arab houses inside the wall had to be removed before the older strata might be reached. Taking Professor Albright's advice we now gave up some other areas left at our disposal by the Government

¹ The national flag, the oldest in existence, originally, according to tradition, fallen from the sky (1219 A.D.).

through a compulsory lease, and made the principal investigation of this place, although we had to buy the areas.

We had the notion that the "City-Wall" must have been the oldest wall, and that, consequently, we must find remains of the oldest town, "Samuel's and Eli's town," inside the wall. It was a risk, and at first it was a failure. When, with much labour, the loose masses of stones had been removed—we built of them a



FIG. 4.—HOUSES FROM ABOUT 1050 B.C. ISRAELITE. LARGE VESSELS *in situ*. WALL OF HOUSE IN THE BACKGROUND.

terrace wall 60 metres long, about 4 metres high and 2 metres broad ! —we found the remains of several houses on the surface of the rock, but most of them were Arab, although dating from the Middle Ages. We did not find traces of any settlement older than Roman times inside the wall.

On the narrow area before the wall we intended to place the mass of *débris* which must be removed from inside the wall. But first we removed the covering of stones in this place, chiefly with the possibility in view that we might find graves here. The layer of

earth was thin, $\frac{1}{2}$ to $\frac{2}{3}$ metre. Very soon two rather complete earthen vessels were uncovered, about $\frac{1}{3}$ metre high, of early Iron Age type, further a single small earthen vessel, which probably likewise belongs to the Iron Age, but resembles vessels of the Late Bronze Age, a fact which clearly puts the date of our specimen at an early part of the Iron Age (XIth cent. B.C.). It was now quite clear that a principal part of our investigation must consist in an extremely careful examination of this area. The archæologist had been fortunate in his venture for all that. Judging from the large vessels



FIG. 5.—EARTHEN VESSEL, ABOUT 1 M. HIGH.
FROM THE HOUSE, FIG. 4.

which were found standing in their place or lay overturned on the floor, we do not hesitate to designate this house as Old Israelite.

The south wall, which was best preserved, consisted of stones of about the size of a head and in a regular piling without mortar. It is of the same character as remains of houses, *inter alia*, from Jericho, see Fig. 4. The upper part presumably had consisted of wood. Also parts of the east and west wall were found, but they were less well preserved. For several reasons the tracing of the ground-plan of the house to its north end is postponed.

The floor was only an earthen one, but on this we found, among other things, a small flat quern-stone for grinding corn. Along the

south wall there were four large store-vessels, still standing side by side, about 1 metre high ; a fifth vessel stood near those at the east wall, and a sixth one lay in sherds scattered over the floor. There were numerous traces showing that the house had been destroyed by fire, as well in the débris filling up the interior of the house, and also in the earthen vessels. These probably had contained wine : if they had been filled with oil, this would no doubt have caught fire, and then the vessels undoubtedly would have shown traces of fire greater than those now visible. The house was about three metres broad, its length is as yet uncertain.

Thus there were houses from Iron Age I before the "City-Wall"! But remains of the same early settlement appeared under the very wall! A large earthen vessel, very similar to the one found in the house just mentioned, was found under the very base of the wall!

The conclusions that may be drawn from these facts are evident : In Iron Age I an old town was situated on the site. It existed to a certain point of time within Iron Age I, according to Professor Albright's dating, about 1150 B.C. At this date it was destroyed by fire, and it seems likely, at least, that this took place at the hands of an enemy. Not till much later, at the earliest in the centuries immediately before the Christian era, was a new city-wall built, which for reasons not directly obvious, was placed farther in, on the remains of the old, forgotten town.

These are the archæological facts. How do they agree with the statements of the Old Testament? The events of the later time of the Judges immediately before the time of the Kings are fairly clear and there is no doubt that the finds on the whole belong to the same period.

Eli's sons carried the Ark of the Covenant into the fight against the Philistines. The fight was lost, and the Ark fell into the hands of the enemy. It is true that it was soon returned to Israel ; but it did not come back to its old place, Shiloh. Why not? The answer has been given by archæology. In the meantime, Shiloh had been taken and destroyed. Shiloh was no longer a place suitable for a sanctuary! Instead, the Ark was carried to a private house in Kirjath-Jearim, and later to Jerusalem. A catastrophe, which destroyed the town to its foundations, had befallen Shiloh. And it

lasted long, until a new town was built. The Old Testament gives the evidence. About 600 B.C., the prophet Jeremiah threatens Jerusalem with the fate of Shiloh, in Yahweh's words: "But go ye now to my place which was in Shiloh, where I set my name at the first, and see what I did to it for the wickedness of my people Israel." At this time, then, the place most likely was lying waste. Archæology has procured an almost strikingly close corroboration. The determination of time, of course, is based on the simple potsherds. But it tells us that between Iron Age I and the Hellenistic



FIG. 6. -THE "TABERNACLE HOUSE," BEFORE EXCAVATING. FROM THE EAST.

Period there was only a very scanty settlement in the place. There were extremely few potsherds found from this period.

I am, however, by no means blind to the fact that the result which we have reached so far, is only to be regarded as a random sample, although highly valuable. We found only one house of the old town from the Iron Age, and remains of one or two other houses from the same period. Most likely this result may be and ought to be supplemented by further investigations on the north side of the Tell, where preliminary soundings seem to indicate that here are several other houses from the Old Israelite Period, which have been preserved because the settlement later moved towards the south, so that the remains of the old Early Israelite town may still

be found. Even a gateway seems to have been preserved. We are in great hopes of gaining a good deal of knowledge here. Further, there is also another fact of great value for the study of the periods of Israelite settlements. Immediately south of the house mentioned above, parts of an older house were brought to light, in which we found some potsherds from the Middle Bronze Age, about 1600-1400 B.C. (so Albright). There had been a still earlier settlement. Is this a Canaanite settlement, or is there a possibility that it may have been Israelite? Here the same question arises as in the



FIG. 7.—THE "TABERNACLE HOUSE," EXCAVATED. FROM THE EAST. IN THE FOREGROUND, LEFT, ARE ROOMS OF THE CHURCH PROPER.

case of Jericho, the question of the date of Israel's immigration into the Holy Land. Here also continued investigations may give results of a very high value.

There is no doubt that the excavation on Tell Seilun itself, and its results, so unexpectedly rich in proportion to its comparatively small dimensions, must be considered the most important results of the excavations in 1929. But they were by no means the only ones.

Of course, our chief aim was to find the very place of the old sanctuary. We had not succeeded in this in 1926. Instead of the sanctuary from the time of Joshua we had found the Arab "open-air Weli," which showed no sure sign that it had replaced an early

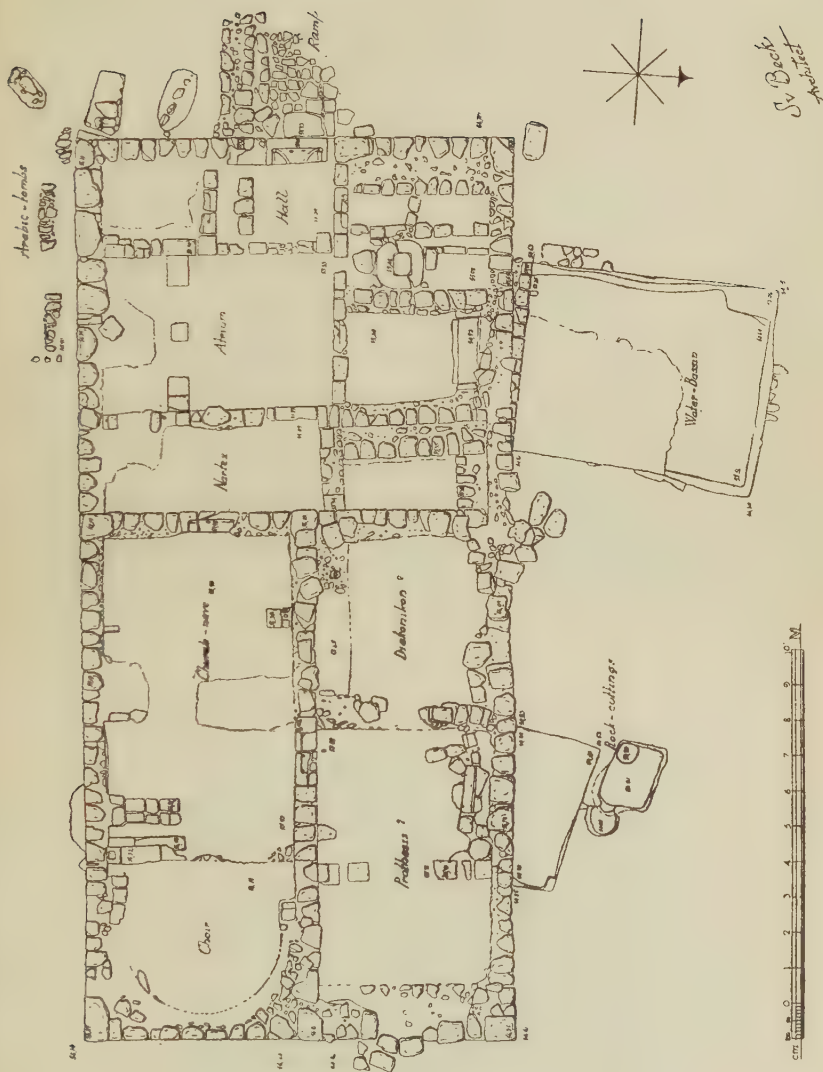


FIG. 8.—THE "PIGRIMS' CHURCH."

sanctuary, even if this was most probably the case. We now fixed our attention on an old ruin in the plain, at a distance south of the Tell, by some designated as the "Tabernacle House," because some of the measurements in the interior discernible rooms seemed to correspond to the measurements of the Tabernacle. See Figs. 6, 7.

There was visible a large outer wall, oblong, with its longitudinal direction nearly east-west, built of large quarry-stones, mostly of a fairly square form, in the north side with up to 5 courses, and in the other sides 2 or 3 courses. The whole area was covered with a rather level layer of earth, $\frac{1}{3}$ - $\frac{1}{2}$ metre thick, with dense bramble-bush. To our great surprise this proved to be the remains of an old Christian church of the type which in Palestine generally, though less correctly, is called a basilica. I prefer to call the ruins the "Pilgrims' Church," the more so as we later on found a real *Basilica*.

The whole room inside the outer wall was considerable, more than 25 metres in length, and outside 11.70 metres in breadth. The church proper, however, took up only an area 14.70 metres in length, 6.30 metres in breadth. The nave is about 9 metres long. The surrounding walls have been very bulky. It would seem that in the east had been a rounded apse.

The two "Tabernacle Rooms" (Fig. 8), which have been provisionally named the "Agapé Room" ("Prothesis") and "Diakonikon," lying in the north, were of exactly the same length and of approximately the same breadth as in the church proper. Towards the west, in front of the church there were several other rooms which could hardly all of them date from the same period as the church in its original shape, but must have been built later. More probably there was formerly an open courtyard with a cistern. But in front of the church proper, in its final shape, there was a Narthex, the place of the catechumens, and before this an Atrium which has been only partially roofed. Fields reserved in the mosaic of the floor show that there have been three square pillars in the middle of the Atrium. Outside the Atrium, again, there was a Hall, or rather an ante-chamber, rather narrow, and outside, before this, a ramp leading to the broad outer door. From this the way went straight to the Atrium and the Narthex, but in order to get from

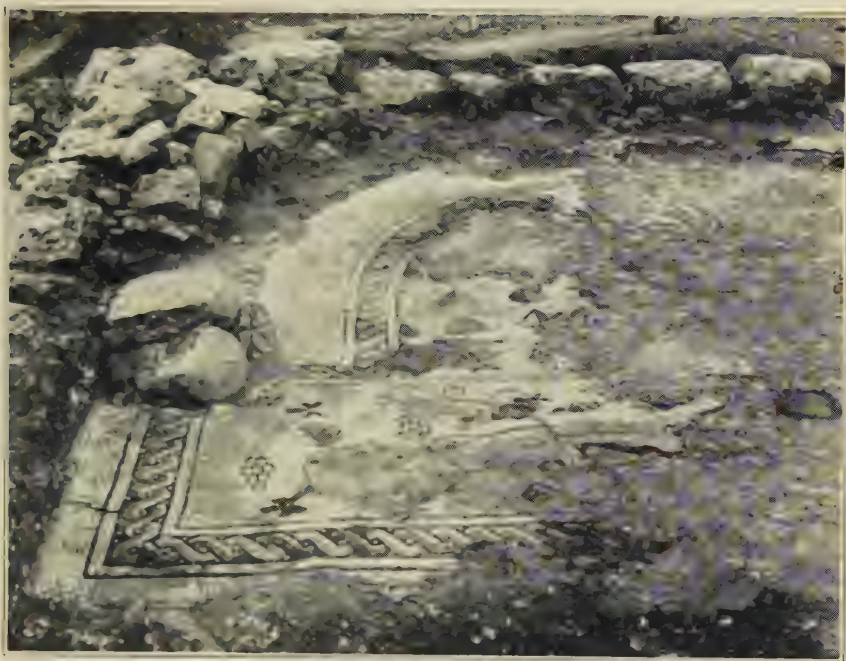


FIG. 9.—MOSAIC IN THE CHOIR. WINE-CUP WITH LEAVES AND GRAPES.

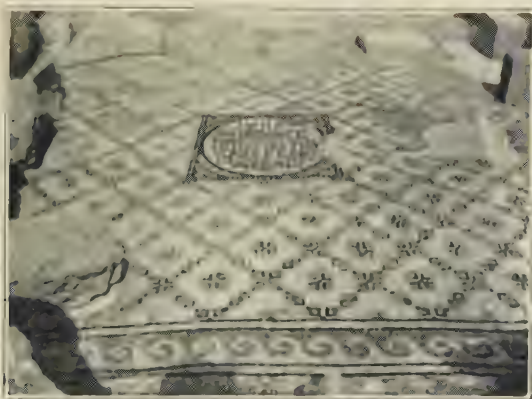


FIG. 10.—MOSAIC IN THE "PROTHESIS," WITH INSCRIPTION. FROM THE WEST.



FIG. 11.—MOSAIC IN THE "PROTHESIS": HARTS AND POMEGRANATE-TREE. FROM THE WEST.

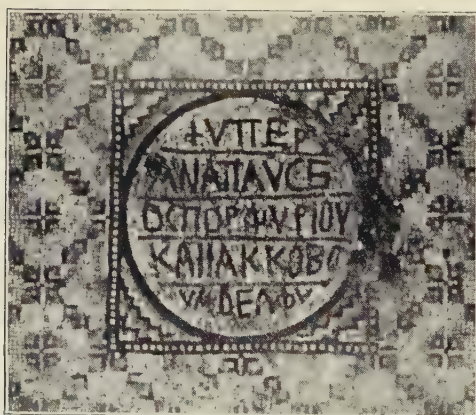


FIG. 12.—INSCRIPTION IN THE "PROTHESIS."

here to the church proper it was necessary to turn to the right. An entrance as oblique as this can hardly be the original one. North of the Atrium is the Cistern, which is connected by a pipe with a large reservoir immediately north of the church, as also several smaller rooms, the purpose of which is quite uncertain. In one of them a burial-chamber cut into the rock was observed, but no bones were found in it. From one of these small rooms there was an entrance of one of the special rooms in the north which has been given the provisional name of "Diakonikon."

All the western part, especially the Hall and the room north of the Narthex, has been rebuilt, and the Hall has been made more narrow in its final shape. Everywhere the inside of the wall was remarkably bad, without lime or mortar; only earth and smaller stones filled out the interstices between the large stones; on the very earth between the stones there has been a layer of plaster, into which potsherds have been stuck, and this has borne the finer plaster, few remains of which were left. The roof of the building had consisted of the usual Roman tiles, a great many fragments of which were found. We found very few architectonic ornaments, and what we found was very simple; but of course we must here as everywhere reckon with the fact that everything usable had been carried away later. The nave and the choir were separated by two low steps and a choir-screen. One of the low pillars of this screen (about 1 metre high) is certainly still to be seen in the neighbouring Weli Sittin.

In the principal parts of the area were mosaics (Plates I. and II.). In the Hall and the Atrium these consisted of homogeneous, rather large, white stones, in the Narthex they were multi-coloured, consisting of smaller stones; they were now nearly all of them missing. But a good deal was preserved in the choir and the nave, chiefly consisting of red and dark stones on a white base, with the cross and, at the border parts, the wine-cup as the chief motives. The essential parts were still preserved in the nave. The condition of the mosaics in the choir was poorer. Here, however, the principal motive—a vine with leaves and bunches of grapes, and conventional leaves—was well preserved in several parts. Also in the rooms of the church traces of reconstructions were to be seen. Especially does it seem that in later times some supporting

pillars were added along the walls; these later additions partially covered the original motives of the mosaics.

The rooms of the church proper are very clear and easily understood. To understand the northern rooms is more difficult. If we follow the way which was probably that of the catechumens, we have to pass from the Narthex through the "Diakonikon," and farther to the "Prothesis" in the east. In the "Diakonikon" there were no traces of a floor, perhaps because everything had been washed out by the rain: there was a large breach in the outer wall here. No doubt there has been a passage from here to the eastern room, but the wall was so demolished that it was impossible to see any traces of a door. In the eastern room we found some characteristic and well preserved mosaics, heterogeneous in the west and east part, but held together by the same frame. The eastern part was separated from the western by two detached pillars which no doubt together with two pillars at the wall supported arches. Straight in between the detached pillars we found a figure-mosaic, with two harts or gazelles, one on each side of a tree. The harts are the well-known Christian symbol with the words in the Ps. xlii., 1: "As the hart panteth after the water brooks, so panteth my soul after thee, O God."

By its floor mosaic—some large cross figures—the east room is determined as characteristic Christian. It cannot have been a baptistery, as there is no trace whatever of any baptismal basin. Immediately east of the detached pillars there are in the floor-mosaic two figures of a fish, the well-known symbol for Christ. Perhaps it is only the well-known acrostic, *ἰχθύς*. But at least there is a possibility that the figures are intended to refer to the feeding of the five thousand, and that the room may have been the place of *Agape*, the Christian love-feast. No doubt the tree between the two pillars represents a pomegranate, and is to be connected with the idea of the tree of life. Most likely the representation is also to be connected with the figure of two animals on each side of a tree, inherited from Babylon. From the western room there was a direct passage to the church, over a threshold in the mosaic of which we found coloured glass.

The question of the purpose of these northern rooms is, however,

uncertain, although we found an inscription in mosaic in the western one :

+ ὑπὲρ ἀναπαύσεως Πορφύριου καὶ Ἰακκόβου ἀδελφ(ο)ῦ

“for the rest of Porphyrios and Jacob, brother.” At the end of the last words a letter, for which there is no space left, is missing (Fig. 12).

The inscription is in Byzantine Greek ; any dating on a basis of the forms of the letters is impossible. On examination we took it to be an epitaph. Most probably there are tombs under the mosaic, but this question has not been tested. Perhaps the explorers will be blamed for this. But for the present, at least, we did not dare to expose the beautiful mosaic to molestation. Although a transfer of “relics of saints” to a place particularly sacred to the Jewish mind, is not out of the question, we have more probably here the names of two men from Shiloh. As is known, the word “brother” may designate a relative, or only a member of the Christian community, as well as a real brother.

The mosaics, and especially the figure-mosaics mentioned, give certain hints as to a closer determination of the period in which the “Pilgrims’ Church” was built. In its original shape it seems to date from about 500 A.D. This dating, which is arrived at by a comparison with other mosaics in Palestine and Transjordan, is corroborated by the discoveries of coins which were made in so great a depth under the surface, close to the sides of the surrounding wall, that they may be regarded as certain : Honorius (ob. 420), Theodosius II (ob. 450) and a Roman one from the fifth century. A church at Madeba, with mosaics with vine leaves and bunches of grapes of a type similar to those in Shiloh, has been dated to 490 A.D.

The church was burnt down once before the final destruction. Traces of fire were visible in several of the mosaics. These have only been the objects of some necessary repairs, and several traces of this are seen, *e.g.*, in the Tree, Plate II, Fig. 11. It is bad workmanship, barely sufficient, without any attempt at reconstructing the picture. The final destruction of the Pilgrims’ Church presumably took place at the Conquest of Palestine by the Arabs, thus before the middle of the seventh century. It must have been burnt down ; but this did not finish the destruction. It even seems that the walls have been pulled down, and part of the material thrown into the reservoir immediately north of the church. Here we found, *inter alia*,

numerous fragments of door or window frames. Far down in this reservoir we also found a few objects which could be dated and proved to belong to the late Byzantine or to the early Arabian Period. But it was impossible to rob the place of its sacred character: immediately south and west of the outer wall there were at least eight Arab Mohammedan tombs. But no Christian churchyard has been found at the Pilgrims' Church as yet.

Thus, the place has remained sacred also to the Mohammedans. Perhaps it is not unjustifiable to think that it may have been felt to



FIG. 13.—PILGRIMS' CHURCH, NORTHERN OUTER WALL. FROM THE EAST.

be sacred even before the construction of the church, that a building which already stood in the place, may have been instrumental in giving the church a character so peculiar in various respects. The outer wall is also not of Byzantine character, but seems to be of an earlier date. Inside the wall we also made observations which seem to indicate that another building has stood here previously.

I must call attention to the fact that immediately north of the church there are some cuttings in the rock, one of which (very flat) leads halfway under the building. Its purpose is not clear, perhaps it had been a wine-press, at any rate most probably determined for

profane use. A second cutting, somewhat farther away from the wall, seems to date from Roman times. About the curious rock-pool we did not succeed in obtaining decisive information. It proved to have been cleared out in the Byzantine Period.

The second church, which is a real *Basilica* with two aisles and without any apse, is situated in the place, which in the plan, Fig. 2, is designated as *habs*, the prison. It presented itself as a most irregular heap of ruins, in its final shape obviously Arab, but one or



FIG. 14.—MOSAIC FROM THE BASILICA IN “HABS.”

two details, especially a great number of small tesserae, suggested that a good ancient building lay concealed below. Preliminary soundings showed that it must have been extraordinarily beautiful. An idea of this building is given by two fine Byzantine capitals, lying down on the ground floor. They have no doubt been stored away to be used later. Others have been used in the Arab Weli Sittin mentioned below. In the west end of the Basilica there was an ante-chamber of the same breadth as the Basilica. In the broad nave there is a very beautiful floor mosaic, of a better workmanship than the one in the Pilgrims' Church, and formed of very small

tesserae (Fig. 14). Further information, also, as to the relation of the Basilica to the Pilgrims' Church will be gained by continued investigations. Even if the Basilica seems to date from a somewhat earlier period, the two churches must have existed at the same time. And there may have been even a third church nearer to the town-hill.

Weli Sittin, a little south-east of the "Pilgrims' Church," is still, in spite of its ruinous condition, regarded as sacred. Also here we have made soundings, in order to obtain at least a little informa-



FIG. 15.—WELI "SITTIN." FROM THE NORTH.

tion as to this much-disputed building. It proved that in the south there is a niche larger than the Arab *mihṛāb* used to be, but still in the main of the same type. Its direction towards Mecca is identical with the direction towards Jerusalem. Probably this feature may afford some explanation of the original character of the building. In the west there has been a window, which seems to have been boarded up later. Its final shape is Arab, and the four pillars which have borne the vaults were no doubt taken from the Basilica just mentioned. This is no doubt the building which

for many centuries was designated by the Pilgrims as *Eli's Tomb* or Memorial Chapel.

The results of our excavations in 1929 were so rich that one or two minor, but in themselves likewise important investigations, may only be mentioned very briefly.

A little north of the "Pilgrims' Church" we uncovered the rock-cave shown in Fig. 16, originally a stone-quarry. Subsequently this was the ante-room or "atrium" of a tomb, the entrance of which was closed by the stone slab that later closed the adjacent side tomb. The latter probably dated from the Byzantine Period,



FIG. 16.—THE ROCK-CAVE, LATER A CHARCOAL-KILN.
ON THE LEFT: ENTRANCE; TO THE RIGHT: SIDE TOMB.

but contained no deposits for the dead. In the main tomb there were five *kokim*, now empty. The tomb was afterwards used as a cistern, and finally as a charcoal kiln. On the bottom there was a thick layer of charcoal, which was so well preserved and also otherwise in such a condition that any other explanation was out of the question. Thus there was in former times a plentiful growth of trees at Shiloh, where now the only tree is the "holy" terebinth at the Weli Yeteim at the south foot of the Tell. The charcoal kiln and its contents must have been forgotten, and this leads with all probability to the point of time in the Middle Ages when Shiloh was destroyed.

Near the "Pilgrims' Church," too, there is a large rock-cave, by the Fellahin, called *Mugharet el-Asad* or *el-'Abd*, i.e., the cave of the

lion or the servant (the "slave"). The Arabs held this place in great respect. On examination it appeared that a great number of human bones lay in the cave, originating from at least 30 or 40 individuals. This did not testify to a massacre. Hardly any bones were naturally joined; they had been deposited in the cave long after the deaths of the persons in question. Among the human bones were found some animal bones, including the bones of one or two dogs, as also a great many potsherds, in all about 1.5 cubic metres, and some few complete earthen vessels (Fig. 17). A great many earthen vessels had been deposited in an incomplete condition.



FIG. 17.—VESSELS FROM THE *Mugharet*. ROMAN-BYZANTINE.

Few other things were found. The most probable explanation seems to me to be that the cave was used for the deposit of bones taken from neighbouring tombs, but that at the same time a sort of continuous cult developed, with sacrifice of food, etc. Sherds from at least 300 earthen vessels were found. They caused a good deal of unprofitable work. Most of them dated from Roman and Byzantine times, a single vessel dated from Arab Middle Ages.

The investigations of 1929 yielded much. But still there is much work to be done, not least on the town-hill. Nor has the old sanctuary been as yet discovered¹.

¹[Professor Burkitt, who was consulted on the Greek inscription (see Fig. 12), kindly remarks that it has *o* for *ω* in the second word, a superfluous *κ* in Jacob, and again an *o* for *ω*. The writer's grammar was poor. "I incline to suppose not only that *αδελφν* is an error for *αδελφον*, but also that *και* stands for *του και*, i.e., the inscription is to be translated 'for the repose of Porphyry, also called James, our brother.'"—ED.].



2.—*Origanum Maru*, AND THE SPRIG USED IN A
BUNCH FOR THE SPRINKLING RITE.



1.—*Za'tur* (*Origanum maru*), GROWING OUT OF A
ROUGH STONE TERRACE WALL (AT ARTAS).



the ritual sprinkling of blood because, owing to its hot (*hami*) nature "it keeps the blood like water" (*bekhalli el-damm zey el-moiya*), and "Za'tar is to blood as water is to sugar" (*ez-za'tar lil-damm mill el-moiya lis-sukka*). In order that the plant should have its full value for the ceremony, he told us, it must be freshly gathered, a bunch of the dried plant would not avail. See Fig. 2.

We went away grateful for the information, which we took to mean that the *Za'tar* was useful because it perhaps prevented the blood from coagulating. Later, however, we learnt that this suggestion had been made before, ⁽¹⁾ but that experiments had already been made at the Hebrew University which proved that it had no such power. Further investigation was therefore called for.

In order to get more information one of us accordingly attended the Samaritan Passover on Mt. Gerizim in April, 1930. It was with some difficulty that the ritual sprinkling of the blood was seen at all, as it was done very quietly, a little while after the Sacrifice was over, so as not to excite the attention of the crowd. Secretively and rapidly a priest passed round the festival encampment, dipping a little bunch of hyssop (*Za'tar*) into a bowl of mingled blood and water and touching the door post and lintels of the huts with it. Strange relic of the past, still lingering on earth past its time! In the moonlight it was as if we saw the ghost of a custom and those who were practising it were already not of this world. Yet some of these strange folk soon broke the spell by their pleasant and practical conversation; again we heard praises of *Za'tar* and its suitability for the ritual purpose, the younger priests using the same phrases we had heard before in Nablus. The plant about which they were speaking was, however, used nearly 20 minutes after the Sacrifice, and the blood (as said to be customary) had been diluted with water, so much so that the smearing on the lintels left practically no traces behind. The only conclusion one could reach therefore is that the plant may have some practical value as a sprinkler or aspergillum, but it was no doubt used because it was traditionally the holy plant to use; and the answers given by our Samaritan friends were merely rationalizing attempts to explain what neither we nor they could really understand.

(1) Dalman, *Arbeit und Sitte*, p. 544.

The Herbals.

When we turn to consult the later literature, the old Herbals, we find there no idea of sanctity or magical power attached to the name Hyssop; it is discussed as a plant of curative value. Wishing (with the optimism of inexperience) to distinguish the hyssop of the Israelites among the hyssops of the herbalists one finds oneself stirring the dust of old controversy. There are so many possible hyssops to choose from, for the name was used at different times for various aromatic labiates, marjorams, thymes, and savories, which have no very striking features to distinguish them. One fondly imagines that some mention in the early Greek herbals might be helpful; the Greek ὕσσωπος is simply a form of the Hebrew *ezobh*, and those who first described it would probably have been meaning to describe the plant of the Hebrews. Disappointed at finding no mention of the name among the 500 plants of Theophrastus (372-285 B.C.) we gladly go on to welcome some scraps of information from Dioscorides, one of the greatest of the herbalists, who lived in the second half of the 1st century A.D. He gathered up knowledge from many earlier workers, and also gleaned much himself while a physician in the army of Nero, forming it all into a herbal, which became one of the chief text books of the civilized world during the next thirteen centuries. He speaks of two kinds of hyssop, one wild and the other cultivated, but describes neither. Gerarde says: "Dioscorides, that gave us so many rules for the knowledge of simples hath left Hyssope altogether without description as being a plant so well known that it needeth none." Yet he left some clues to it in comparisons made to it while describing other plants⁽¹⁾ These, taken together, amount to something like this. The plant called Origanon "has leaves like the Hyssop, but not round (wheel shaped) umbels⁽²⁾, and Onetis "has whiter leaves and is more like the Hyssop." This Origanon is a Marjoram, probably *O. heracleoticum* L., and the Onetis is probably *O. onites* L., White Marjoram of Greece. Further, he says that the best kind of hyssop

(1) J. Berendes, *Des Pedanios Dioskurides aus Anazarbos Arzneimittlehr.* See p. 281 (ch. 27 [30]); p. 282 (ch. 30 [32, 33.])

(2) "Radformige Dolde," according to the translation given by Berendes *op. cit.* These identifications of Origanon and Onetis cannot be made with certainty, but they must be Marjorams, if not those suggested, then others very similar to them.

grows in Cilicia, and Pliny⁽¹⁾ says on Mt. Taurus, in Cilicia. What plant is there growing in those regions that is nearest to *Origanum onites*? There is a white Marjoram there which is near to *O. onites*; but, what is more interesting to us, it is nearer still to *O. maru*, so near indeed that it is often taken for it, though it is now agreed that it shall have a proper name of its own *O. dubium* (*Boiss.*). The specimen of this plant, collected by Kotschy on Mt. Taurus and preserved at Kew, was formerly labelled *O. maru*, to be later corrected to *O. dubium* by a more meticulous observer. This distinction is made because the plant has leaves with definite stalks, less prominent veining on the leaves, and is rather taller than *O. maru*. The difference between the plants is so slight that we can hardly be surprised if Dioscorides regarded them as the same. Whether he was actually intending to describe the hyssop of the Israelites cannot be certain, but in the period in which he lived the Alexandrian School of Medicine was flourishing, and there was no doubt exchange of learning between it and Jewish physicians. It is not unreasonable to suppose that he really was describing the uses of the hyssop known to them, and he regarded, patriotically, the variety of his native mountains as the best kind of it.

When we pass on to examine the accounts of Hyssop in our English herbals of the XVIth—XVIIth centuries we discover that a singular transference has taken place, the virtues given by Dioscorides and the early writers are now being ascribed to quite another plant than a marjoram. Hyssop is now the plant we know as *Hyssopus officinalis*, a strongly aromatic herb with long pointed leaves and long spikes of purple flowers said to have been introduced into Britain by the Romans. When this transference took place we have not yet discovered, but the way in which it came about seems clear. The old herbalists were creating a primitive kind of botany by forming family groups of plants with supposed similarity of qualities—hence an early group of “hyssops” in Greek and Roman herbals, all very probably marjorams or plants very like marjorams. But when northern herbalists took over former descriptions of some renowned foreign plant they often applied them to a plant of like aromatic or medicinal nature more familiar to them—hence a later

(¹) Pliny, *Nat. Hist.*, bk. 25, ch. 87.

group of "hyssops" taken to be more nearly related to each other by the herbalists than by modern botanists.⁽¹⁾ By some such transference the prescriptions of Dioscorides for the use of Hyssop, copied and recopied, came in our English herbals to be applied to the hyssop of English herb gardens. Still, these herbalists did notice how little their plant agreed with the scanty indications given by Dioscorides.

Some were frankly puzzled and non-committal, as Wylliam Turner in the *New Herbal* (1551):—

"Dioscorides levethe Hisop undescribed, belike it was so well known in his days yt he thought it needed not to be described but by that meane it is now come to passe that we dowte whether this Hysop that we have be the true Hyssop of the auncient writers or no. Dioscorides in the description of Organe compareth Organe in likenesse unto the Hysop but no Organe that ever I saw whether it came out of Candi or out of Spaine or grewe here in England like unto our Hysop for theirs is brode leved and oure hysop has long leves wherefore ether we have not the true hysop or els we never saw the true Organe." Others, being perfectly convinced that theirs was the true Hyssop concluded that therefore the Hyssop of Dioscorides must be another plant. John Parkinson, for instance, writes, "But there is a great kontroversie among our later writers what herbe should be the true hysope of Dioscorides; for that our common Hysope is not it, but is the true Hysope of the Arabians, all doe acknowledge except Matthiolus," etc.²

Now if there is one certain thing in the whole controversy it is that *Hyssopus officinalis* is not the true hyssop because it is not a native of Palestine. We, knowing this, are far more likely than these prejudiced writers to consider the claims of the plant of Dioscorides to be the true Hyssop itself or a plant very close to it.

Talmudic References.

All that we can learn in this quarter goes to confirm the identification of *Za'tar* with Hyssop. The Talmudists seem all to agree in

(1) When countries far from each other are in question, much stranger results can be noted, e.g., in Saxon herbals we find the virtues of *Tribulus* transferred to Gorse, and those of the Caper to the Woodbine, etc.

(2) John Parkinson, *Theatrum Botanicum*. Chap. 1.

considering it to be a marjoram, and some suggest *Za'tar* itself, *e.g.*, Maimonides, when he explains the Hyssop of the Law as "plainly the *sa'tar* which the people use for their food."¹

It is considered that the identification can be supported, too, on etymological grounds, and Dr. Post says: "the Arabic *zufa* is etymologically near to the Hebrew *ezōbh* and *zufa* is doubtless the same as *za'tar*."² Not that this would clinch the matter, for the name *sa'tar* or *za'tar* is used in the present day in the East for as many or more plants as hyssop was in the past. In Palestine alone we know of:—

<i>Za'tar</i>	<i>Origanum maru. L.</i>
<i>Z. farsi</i> ("Persian")	<i>Thymus capitatus, L.</i> (More usually <i>zuhef</i> .)
<i>Z. sabbali</i> ("eared")	<i>Thymbra spicata, L.</i>
<i>Z. homar</i> ("donkey's")	<i>Satureia thymbra, L.</i>
<i>Z. mane</i> (?)	<i>Calamintha incana S. et Sm.</i>
<i>Z. hindi</i>	<i>Ocimum indicum.</i> (Rare, usually <i>Rihan</i> .)

But as far as this country is concerned *O. maru* is *za'tar* par excellence, and the other *za'tars* are always named with a qualifying epithet.

There are two passages in the Mishnah advising all good Jews to use the right kind of hyssop; one runs: "the rule for the hyssop is that it should not be Greek hyssop, nor stibium hyssop, nor Roman hyssop, nor wild-hyssop, nor any kind of hyssop to which a special name is given."³ And the other: "Any kind of hyssop that is given a special name is invalid, but hyssop, simply so called, is valid; Greek hyssop, stibium hyssop, Roman hyssop, or wild-hyssop are invalid."⁴ Both seem to take it as much for granted as Dioscorides that all possible readers knew which hyssop was which and that there was no need to describe the right one to them. When one came first upon these passages it was just as if one heard a Palestinian saying: "You must use *za'tar*, not *Z. farsi*, or *Z. sabbali*, or *Z. homar*, only *Za'tar*."

(¹) Maimonides on Mishnah, Neg. 14.6. See Dalman, *Arbeit und Sitte*, p. 544.

(²) Hastings, *Dictionary of the Bible*, 1900, vol. II., p. 442.

(³) Mishnah Negain, xiv, 6.

(⁴) Mishnah Parah xi., 7.

Medicinal Value.

It has often been remarked during the controversy that after all, the hyssop of the Ancients was of medicinal value and *Za'tar* is a condiment. Could a plant, for instance, of which the Epistle of Barnabas says "he also who has pain in his flesh is cured by the foulness of the hyssop" be possibly used as a condiment?¹ In reply to this one may say that most of our present day condiments were formerly used as drugs. Pepper and mustard are an acquired taste, and so no doubt is *Za'tar*. There is some difference, too, between a strong infusion of the plant, to drink which might be distinctly unpleasant, and the aromatic powdered dried leaves, specially prepared to sprinkle on food. For use in food, in stews it is usually dried, mixed with *simmak* (*Rhus coriaria*) or with *simmak* and *kaliya* (roasted ripe wheat) ground to powder in a stone hand-mill; it is then called *z. imhawagi* (Z with ingredients) or *z. imtabalt* (prepared Z.). This mixture gives a good spicy flavour to the dish and is also reputed to act as a digestive. Another very favourite use is to spread the powdered *Za'tar* on bread. The following is a rather more elaborate recipe than the usual one. Take *Za'tar*, *simmak*, *simsim* (sesame) *kirfa* (cinnamon), *kmh muhammis* (roast wheat), *kak* (dried Syrian biscuit), *bizr battikh muhammis* (roast melon seeds) all ground fine. Oil the dough, when well kneaded, spread with the powdered spice and bake. "Never will my husband eat a morsel of bread that is not made in this way" said the good housewife who proudly explained exactly how the mixture should be made.

Though undeniably eaten for pleasure the "prepared *Za'tar*" is regarded also as of medicinal value. It seems a curious way to us of taking medicine, but was recommended in the old herbals. Gerarde⁽²⁾ says of the *simmak* so often mixed with the *Za'tar*—his "Coriars Sumach," "the seed is no less effectual to be strowed in powder upon their meats which are Caclici or Dysenterici."

Za'tar is not often used in infusion—occasionally *Za'tar*-tea is ministered to infants troubled with wind, much as dill water is in England, but the more nauseous *Gade* (*Teucrium polium*) is

(1) *Epistle of Barnabas*, trs. by Lake, *The Apostolic Fathers*, 1, p. 371 (Loeb Library).

(2) Gerarde, *Herbal*, p. 1475. (Ed. of 1636).

preferred to it for this purpose; it is also regarded as slightly purgative. "Purge me with hyssop" could perfectly well be said of *Za'tar*, if it were to be taken literally, which is unnecessary, the sense being no doubt an allusion to the ritual cleansing. But the chief medicinal value in local lore is as a stimulant to the brain, after eating it the student finds his head clear and can study well. O what a help to the passing of examinations here! *Za'tar* eaten fasting or rubbed on the forehead or round about the ear clears the memory and, would-be orators hope that it may give them fluency for: "he who eats *Za'tar* his tongue shall not stammer" (*ille bokat el-za'tar lisanu ma tetatar*).

We can find little in these various uses that at all resembles those given for either Hyssops or Organies in the old herbals. According to Gerarde the Organies are hot in the third degree and have such a long list of virtues that it would be strange if some of them did not agree with those of our Organy, one indeed runs: "the bastard kinds of Organy or Wild Maieromes . . . are very good against the wamblings of the stomach, especially at sea," and *Za'tar* too, as well have seen, is reckoned a stomachic, but this is no very striking coincidence. In the realm of magic, however, there is a most curious connection with other Organies, for in Palestine folk say: "Who for 40 days eats powdered dried leaves of *Za'tar* fasting can be harmed by no serpent." Now there is a very ancient belief that Wild Marjorams cured the bitings and stings of venomous beasts, which we can trace back as far as Pliny.⁽¹⁾ Culpeper ⁽²⁾ says: "Thus much for this herb, between which and adders there is a deadly antipathy." As Step⁽³⁾ remarks: "It is not clear how the adder annoyed the herb, but the plant was said to make the biting of the adder of no effect."

Nowadays, some of the "virtues" endure for a time and some are passed away, but that which gave the plant its virtues, its essential oil, is likely to be more valuable in the future than the present. Perhaps some day, when Plant Chemistry is more advanced such herbs will come back into their own and again minister to man. Already the oil has been extracted and used, *e.g.*, at the Convent of

(1) Pliny, *Nat. Hist.*, bk. xxv., ch. 87.

(2) Culpeper, *British Herbal*.

(3) Step, *Herbs of Healing*, p. 149.

Beit el-Gemal in Bab el-Wad, and at the colonies of Artuf and Benjamina; it is said to be excellent for perfumes, especially Eau de Cologne. It is said, too, that the commercial oil known as Syrian Oil is sometimes derived from this source,⁽¹⁾ but one cannot be sure whether such analyses as do exist in books and reports are certainly of *O. Maru*, or some other *Origanum*. Unfortunately gatherers for commercial purposes are not so concerned as Samaritans to be sure that they get the right hyssop!

(1) Finnemore, *The Essential Oils*, p. 755.

EXCAVATIONS AT THE MUGHARET EL-WAD, 1930.

MISS DOROTHY GARROD.

In the *Quarterly Statement* for October, 1929, I gave a short account of our excavations in the cave known as the Mugharet el-Wad, near Athlit, and although I do not propose to enter again in any detail into last year's work, I think it will be useful, as preface to an account of the 1930 season, to give a very brief summary of the whole excavation up to date.

The Mugharet el-Wad lies at the western foot of Mount Carmel, facing N.W. over the coastal plain towards the Crusaders' castle at Athlit, $3\frac{1}{2}$ miles away (Plate I, Fig. 1). The cave consists of a large outer chamber and a smaller inner chamber, from the back of which opens a lofty corridor, over 60 m. in length. It has three openings, lying side by side, of which the central one is the largest, and must have been the main entrance in prehistoric times, the two lateral ones being merely windows in the rock façade. At a later date, probably in Byzantine times, a massive wall was built across the main opening, and the left-hand one was enlarged and shaped to take a door (Plate I, Fig. 2). Immediately in front of these entrances is a small terrace, from the edge of which the ground falls rapidly away to the level of the plain.

In the course of excavation Chambers I and II (the outer and inner chambers already described), have been completely emptied, a large trench has been dug to bedrock on the terrace, and a series of soundings has been made in the inner corridor. To summarise the results, it is sufficient to say that Chamber I had been extensively disturbed, and that the complete sequence of layers was present only in Chamber II. The maximum depth of the deposits in this chamber was 2.80m., and eight levels were present, of which seven were prehistoric. They were as follows, counting from above downwards :—

- A. Bronze Age to recent.
- B. Mesolithic.
- C. Upper Paleolithic of Capsian affinities.
- Di. Middle Aurignacian.

- D2. Middle Aurignacian.
- E. Lower Middle-Aurignacian.
- F. Layer of erosion containing both Lower Aurignacian
 \ and Mousterian.
- G. Mousterian.

This is by far the most complete prehistoric sequence so far found in the Near East, and lays the foundations of a Palæolithic chronology for this region.

The trench dug on the terrace of the cave gave the following section :—

- A. Stony earth, 1-2 m. Bronze Age to recent.
- B. Tough red earth, 50 cm.-1.20 m., Mesolithic.

Layer *B* which was completely undisturbed, contained the same industry as layer *B* inside the cave. It rested immediately on bed-rock, the Upper Palæolithic and Mousterian being absent.

As the work done this year inside the cave merely confirmed what we had already discovered in 1929, I do not propose to enlarge on it. The excavation in the undisturbed Mesolithic deposit on the terrace, has, on the contrary, brought to light a great deal of new evidence, and has materially increased our knowledge of this culture. I think, therefore, it will be interesting if I deal with this in greater detail.

Although microlithic implements had been collected from various surface sites in Palestine, the Mesolithic culture as a whole was unknown before 1928, when the British School began to excavate the cave of Shukba in Western Judæa. Here we found a microlithic industry without pottery, characterised by an abundance of small crescentic flint knives. In 1929 a similar industry was found in layer *B* of the Mugharet el-Wad. The disturbance of the outer chamber had fortunately spared a large patch of deposit containing a collective burial of this age, which I described last year. It was not, however, until we dug on the terrace that the Mesolithic industry was found under completely satisfactory conditions, quite undisturbed, and contained in a deposit sufficiently hard to prevent the intrusion of later objects. A small sounding was made on the terrace in 1929, in the course of which we uncovered the first of the burials described below, but the greater part of the work belongs to 1930.

Layer *B* on the terrace consisted of very tough, dry red earth, containing in places considerable quantities of charcoal and burnt animal bones. It rested immediately on a platform of rock which sloped rather steeply downward from the mouth of the cave. The surface of *B* sloped downwards in the same direction, but more gently, the deposit being 50 cm. thick at the mouth of the cave, and 1.20 m. at the far end of the trench.

Flint and bone implements were abundant throughout the layer, but no pottery was found. It is this absence of pottery which obliges us to date this culture as Mesolithic, although in many ways it is more advanced than the corresponding Azilian and Tardenoisian in Europe.

Three burials were found at the base of *B*, lying a few centimetres above bedrock. Although the position of the body was different in each case, these three burials had certain important features in common, for in all of them the corpse lay on a hearth containing abundant animal bones, and was packed down with large blocks of limestone. Two of the skeletons were in the upper end of the trench, close to the mouth of the cave. The third was at the lower end of the trench, and was associated with a remarkable series of "works" or constructions on and in the bedrock.

When the deposit had been completely removed in the lower end of the trench, it was found that the surface of the rock had been artificially levelled, so as to make a little platform, about 1.50m. square. The marks of some kind of rough pick were plainly visible all over the levelled area. In the middle of this platform a stone basin, 30cm. deep, had been cut in the rock (Plate II, Fig. 3). This has a V-shaped section, and the walls are not smoothed in any way, the marks of the pick being still visible. Round the mouth of this basin the levelling of the rock had left a flat rim, and placed on this were two small blocks of limestone set at right angles (Fig. 4). Three smaller basins were found to the right of this one, and outside the levelled area, but they are not so well-made, and have no rims. To the N. of the basin a number of flat, more or less quadrangular slabs of limestone have been set carefully side by side to form a kind of curb, or enclosure, and immediately behind them a narrow trough has been cut in the rock. The outer ends of the slabs rest not on the rock, but on the tough red earth

which forms the base of the archæological deposit, and it is clear that the bedrock falls fairly steeply away at this point, to a depth still unknown. Just outside the curb or wall, and at a slightly lower level, was found the burial already described (Plate II, Fig. 5), and there are indications that further excavation will lead to the finding of other skeletons close at hand.

This discovery came at the end of the season, and there was no time to go further. Next year, however, I hope to excavate the terrace completely, and we may get some clue to the purpose of these arrangements. Meanwhile, it is difficult to think that the holes were used for grinding or pounding, as they show no trace of wear. On the other hand, the theory that the whole thing is connected with the cult of the dead, though not impossible, needs stronger evidence than we possess at present.

I need not emphasise the interest of this find, at the base of an undisturbed Mesolithic deposit. As far as I know it is the earliest example of its kind so far discovered.

The stone implements found in layer B fall into two series: one in which the artifacts, made of flint, range from true microliths to fair-sized blades, and the other consisting of a relatively small number of massive tools made of chert, of which the most interesting type is a kind of rough pick.

The form which is by far the most abundant is the microlithic crescent or lunate, of which we found many thousands. Other tools which are very common are the parallel-sided *dos rabattu* blade, with slightly concave back, and the typical sickle-blade, worked down the back and across the ends, with the peculiar highly-polished edge produced by cutting straw. Over 300 Tardenoisian microgravers were found, but the ordinary graver is relatively rare.

The collection of tools and other objects made of bone is large and varied. It includes:—

Points and pins (Plate III, Fig. 6).

Harpoon fragments, very small and delicate, with barbs on one side only (Plate III, Fig. 6).

Bone pendants and beads, the majority more or less pear-shaped, and probably copied from the canine tooth of a deer (Plate III, Fig. 6).



FIG. 1.—OPENING OF THE WADI EL-MUGHARA, SHOWING THE CAVES.



FIG. 2.—DOORWAY OF THE MUGHARET EL-WAD.

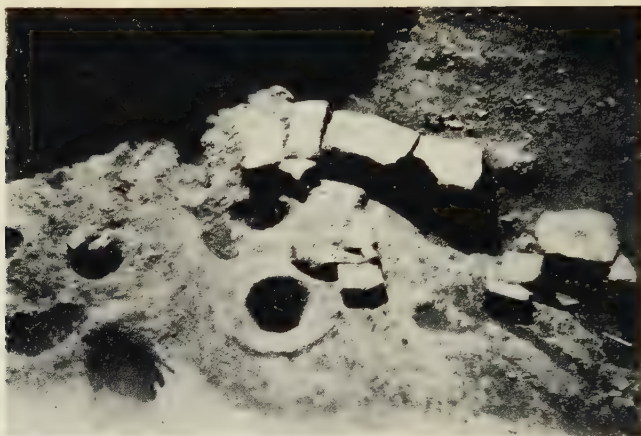


FIG. 3.—LEVELLED AREA AND ROCK-CUT BASINS AT BASE OF LAYER B.



FIG. 4.—VIEW OF LARGE ROCK-CUT BASIN AT BASE OF LAYER B.



FIG. 5.—BURIAL ASSOCIATED WITH ROCK-CUT BASINS AT BASE OF LAYER B.



FIG. 6.—BONE OBJECTS AND PIERCED TEETH FROM LAYER B.



FIG. 7.—FLINT SICKLE-BLADES AND GROOVED BONE HAFTS FROM LAYER B.
The specimen in the upper left-hand corner has two flint flakes still in place in the groove.

HYSSOP.

BY MRS. G. M. CROWFOOT and MISS L. BALDENSPERGER.

“ Say, botanist, within whose province fall
The cedar and the hyssop on the wall.”

Cowper.

EVERY Palestinian knows *Za'tar*, the little grey green marjoram (*Origanum Maru*, L.) with the fragrant smell and masses of tiny white flowers, growing so commonly on rocks and terrace walls (Fig. 1). It is used from one end of the country to the other as a spice or condiment and has some repute too, as a medicine; where it does not grow in abundance it will still be found in the market, having been brought from some more fortunate spot.

What is more interesting to us than this is that *Za'tar* is most probably the Hyssop of the Bible. This is generally accepted by botanists in Palestine, and the following is an attempt to give briefly the reasons which lead them—and ourselves—to be so confident of the identification.

Hyssop in the Bible.

The way in which hyssop (Hb. *ēzobh*, New Test. ὕσσωπος) is spoken of in the Bible gives only slight clues to its nature or the reasons for its ritual use.

In four cases it is mentioned as used to sprinkle blood: (a) during the Passover ritual¹; (b) “in the day of the cleansing of the leper” (together with a live bird, cedar wood and scarlet²), (c) for the cleansing of a house (similarly to (b))³ and (d), according to St. Paul, as having been used by Moses at the Making of the Covenant: “he took the blood of the calves and the goats, with water and scarlet wool and hyssop and sprinkled both the book itself and all the people”⁴. Again, (e) hyssop was used in the “sin offering,” to sprinkle unclean persons and things with the “ashes of the burning” and “running water”⁵. These ashes also contained ashes

(¹) Exodus xii, 22.
(⁵) Numb. xix, 6, 17.

(²) Lev. xiv, 6.

(³) Lev. xiv, 49.

(⁴) Heb. ix, 19.

of hyssop, for it was ordered to be cast into the midst of the burning of the red heifer, together with cedar wood and scarlet. Here a rationalising spirit might suggest that the aromatic wood and herbs would form a very welcome part of such a fumigation.

The linking of the cedar and the hyssop in these ceremonies is full of other suggestions as they are proverbial of the poles of the vegetable creation. Solomon's plant-lore extended "from the cedar that is in Lebanon even unto the hyssop that springeth out of the wall."⁽¹⁾ *arz el-Rabb*, "the cedar of the Lord," as the Arabs say to this day, stands for power and majesty—may the cedar then have been a symbol of the infinitely great, and the hyssop, with the fragrance of its minute flowers, for a symbol of the infinitely small?

This much can be gleaned from these references towards our quest: the sacred hyssop was a small plant, such a one as could be used to make a bunch suitable for an aspergillum or sprinkler, probably aromatic, growing on walls, but though our *Za'tar* does agree exactly with these requisites so also would other small herbs

The Samaritan Use.

We turn here at once to what we think the strongest argument in favour of *Za'tar*, the fact that it is used as hyssop to this day by the Samaritans in their Passover ritual. These rigid Conservatives may well be still using the same plant they have used for the last 2,000 years or so: it does not follow, of course, that their hyssop must be the hyssop of the Israelites, but the identification can be supported on other grounds and the Samaritan use goes far to make it certain.

We first learnt of this use on the occasion of a visit to the High Priest of the Samaritans at Nablus, who most courteously gave us information about the plant. Bringing out a copy of the Pentateuch in three languages, Hebrew, Samaritan, and Arabic, beautifully written with his own hand, he pointed out that where the Hebrew had *ezobh*, the Samaritan had *zufa*, and the Arabic *sa'tar*. The classical *sa'tar* is generally translated thyme, but to the High Priest it meant the *Za'tar* of daily life, *Origanum maru*, which grows freely on Mt. Gerizim. He declared that *za'tar* was of peculiar value for

⁽¹⁾ 1 Kings v, 13.

Skin-rubbers, made from pieces of the antler of *Dama Mesopotamica*, cut obliquely across one end and smoothed by use.

Sickle-blade hafts made from ribs or shaped pieces of long bone, deeply grooved down one edge. One of these has two flint blades still in place in the groove (Plate III, Fig. 7).

This layer has also yielded two remarkable works of art which I described last year, but mention again for the sake of completeness. One, found by the Department of Antiquities in a preliminary sounding, represents a young deer, carved in the round on the end of a piece of long bone; the other, discovered by us at the base of the collective burial in Chamber I, is a small human head, roughly carved from a piece of calcite.

One point in connection with this Mesolithic culture on which I should like to lay stress is the evidence for a primitive form of agriculture afforded by the large number of sickle blades and hafts discovered. It is generally held that in Europe agriculture and pottery arrived more or less simultaneously, at the beginning of the Neolithic; but here in Palestine we have a people who were practising some form of agriculture before they had any knowledge of pottery. This seems to suggest either that the two arts originated in different regions, and only came together at a later date, or else that agriculture is definitely the older of the two.

I should like, in conclusion, to say that I once more express my gratitude to Mr. Robert Mond, whose generosity makes it possible for the School to undertake this work, and also to our collaborators, the American School of Prehistoric Research, who have again borne half the cost of excavation, and have sent two of their members, Dr. Martha Hackett and Mr. Theodore McCown, to take part in the work.

THE CHRONOLOGY OF JERICHO.

I was recently asked how to harmonize my opinion of the date of destruction of Jericho being "ascertained to fall before the close of the Late Bronze Age" (*Q.S.*, July, 1930, p.131), and the conclusion reached by Prof. J. Garstang "that upon present evidence the city was destroyed, in round figures, about the year 1400 B.C." (*Q.S.*, *ibid.*, p. 132).

Everybody is indeed now aware that the close of the Late Bronze Age in Palestine is about the year 1200 B.C. ; hence, far from backing the conclusion arrived at by Prof. Garstang, my own belief, witnessed by the brief report given under the joint names Garstang-Fisher-Vincent (*Q.S.*, *l.c.*, p. 131), widely disagree by a round two centuries, or exactly the half of Late Bronze Palestinian Age. I am sorry then to confess that any kind of harmony between these two so widely-severed conclusions seems to be excluded. Anyhow, let me add, as at least a provisional hypothesis, pending any future explanation, that some mistake has arisen.

When the "brief report" was drawn up on March 12 [1930], at Jericho, it concluded a three days' accurate and minute checking of every bit of evidence in architecture, stratigraphy and pottery, across the whole newly-excavated area. Prof. J. Garstang knows, of course, every detail of my own conclusions, which he was kind enough to admit after a good deal of discussion in front of the old walls and amidst heaps and baskets of potsherds. So confident was I of his holding the same approximate date of final destruction, and consequently the same chronological sequence of the city walls that, coming back from the excavations, I wrote to Sir Charles Marston, on March 13, quoting as conclusions agreed by Prof. Garstang and myself :

I. The *red* wall, or wall with a sloping stone revetment enclosing the foot of the mound, is founded upon remains of the Early Bronze Age, some archaistic potsherds of the Middle Bronze Age being associated. Therefore the rampart could not be earlier than $\pm$ 1900 B.C. Elsewhere are good hints of its destruction towards 1500 B.C.

II. The double wall at the top of the mound, or *blue* wall, is from two quite different periods :

(a) The first one, associated with Early Bronze remains and only very scarce traces of the Middle Bronze Age, belongs to the second half of the Early Bronze Age, lasting till the first century of the Middle Bronze Age, that is to say, in round figures, from 2100 to 1900 B.C., when it was destroyed and replaced by the largest wall at the foot of the mound ;

(b) The second one, following with some irregularities the decaying top of the earlier wall and built in quite another technique, runs on débris contemporaneous with the beginning of the Late Bronze Age ; therefore its foundation could not be earlier than 1500-1450 B.C., say soon after the destruction of the *red* wall.

III. This later *blue* wall (b), or top rampart, lasted certainly till the destruction of the Canaanite city, somewhere at the end of the Late Bronze Age, more or less between 1250-1200 B.C.

Such was, and such is still to my mind, the evidence available from Prof. J. Garstang's Excavations on the Mound of Jericho, from January to March, 1930. In behalf of truthful and cautious method in Archæology it is no longer possible to speak of our " unanimous conclusion " (*Q.S.*, July, 1930, p. 131), since one of us is ready to shorten by a period of nearly two full centuries the cultural evolution of the Canaanite Jericho.

L. HUGUES VINCENT.

Jerusalem, January 21st, 1931.

PROF. GARSTANG'S REPLY.

The point raised by the Very Rev. Père Vincent, though opening a wider field of discussion and research, happily does not disturb the main points of agreement reached last year. It concerns the last sentence of the paragraph quoted on the bottom of p. 131 of the *Q.S.* for last July : " The date of destruction was ascertained to fall before the close of the Late Bronze Age, but the precise date . . . can only be determined by more . . . excavation." Père Vincent now explains that when he endorsed the statement quoted he thought the words " before the close " implied

"towards the close," and he is not in agreement with me if I interpret the phrase as meaning "in the middle of." It is purely a question of words and idiom, not of fact. The document in question was drafted by me after a long study of the stratifications of the walled city, and in technical accord with Dr. Fisher, and it was issued to the Press for publication on March 3rd, 1930. During the following week Père Vincent came to stay, and I was able to demonstrate to his satisfaction the existence of the upper (Late Bronze Age) wall of brick, and to show him the evidence as to its date. After going thoroughly into this matter, which was a new light upon the problem of the Walls of Jericho to him, no less than to others, he very courteously endorsed the draft of the bulletin. The document remains valid as regards the sequence of the walls, its main feature, and this part is not affected by the cancellation of the last paragraph. At the same time, I can assure Père Vincent that, while limiting the range of farther research to the Late Bronze Age, it was no part of my intention to interpret the paragraph as pointing towards any fixed date: the wording was purposely left elastic, as I was aware that there were differences of opinion as to the date of destruction. In fact, it was on this account, to seek for definite and reliable evidence on this very point, that Sir Charles Marston and the late Lord Melchett organized a second expedition, and I find myself again at Jericho as I write.

Père Vincent takes the opportunity, which English readers will welcome, of explaining his own views as to the date, expressed at the time in a letter to Sir Charles. I had already invited him to let me have a contribution from himself for publication in England, as there is no opinion more worthy of respect. His dates were based primarily upon the former excavations, and are independent of our subsequent discoveries. They bring the limits of occupation in the Bronze Age down to the close of the thirteenth century B.C. It is a tribute to his perspicacity that, after his visit, we found clear traces of a partial re-occupation of the north end of the site, extending beyond the old Canaanite rampart, in the second half of the Late Bronze Age (see p. 132, and the late Dr. Hall's presidential address, p. 122, in the same *Q.S.*). But the evidence seemed clear that at this time the walled city lay in ruins. Unhappily, a bout of malaria at the end of the season prevented me from telling Père Vincent about this. But as we are still collecting evidence, it is not much use

discussing the question of date at this stage. Meanwhile nothing I have seen this year, thus far, leads me to modify the view tentatively expressed on p. 132, that the walled city was destroyed about 1400 B.C. But this opinion, though gaining strength, is not final; it is based on negative evidence, namely, the absence of Mykenæan wares in the uppermost strata of the walled city of the Late Bronze Age. If the publication of it was premature, it has at any rate the merit of having elicited Père Vincent's interesting statement of his views.

J. GARSTANG.

Jericho, March 1st, 1931.

REVIEWS AND NOTICES OF PUBLICATIONS.

New Sheets of the 1 : 20,000 scale Map of Palestine.

The Fund has received, by the courtesy of Captain C. H. Ley, C.B.E., Director of the Survey of Palestine, two sheets of the map on the scale of 1:20,000 (about 3 inches to one mile). Each sheet of this series covers an area 10 kilometres square, and the sheet itself is, therefore, half a metre, or 19·68 inches square. The two sheets in question are the Qaqūn sheet, in the Northern District, and the El Mesmiye El Kbīre sheet, in the Southern District. The western edge of the former sheet is within two or three miles of the shore of the Mediterranean, and its northern edge is about 8 miles south of Caesarea. The northern edge of the southern sheet is some 21 miles south of Jaffa, and its north-western corner is about four miles from the shore. If the outlines of the sheets are drawn on this well-known P.E.F. map on the scale of $\frac{3}{8}$ inch to one mile, they will appear as small squares of nearly 6 centimetre sides, or about 2·4 inches. This may serve to give an idea of the large number of sheets that will be required to cover the whole of Palestine.

The sheets are part of a Topocadastral Series, and are correctly so described in the margins. The term indicates that the sheets fulfil a double function, like the 6-inch sheets of Great Britain. The ground is contoured and the natural features are shown. But, in addition, the various boundaries are marked—international, district, sub-district, municipal, village and “fiscal block.” There

is a great wealth of information presented, and the series will, as it spreads over the country, supersede all previous maps.

As regards the information shown, we find boundary stones, bench marks, churches, synagogues, mosques, fences, and walls, roads and tracks, marsh, uncultivated land, bushes, quarries, pools, threshing floors, wells and cisterns, scattered trees marked by special symbols, three kinds of groves, orchards, vineyards and plantations. It is a very complete presentation of the state of this land, and, combined with the land registration, forms a modern Domesday Survey, as well as providing those interested in the topography of Palestine with an elaborate and accurate topographical map.

C. F. CLOSE.

Kolloid Beihefte: Die entstehung der Mediterran-Roterde. By Dr. Phil. A. Reifenberg. (Steinkopff, Leipzig, 1929. 5 m.)

Dr. Reifenberg gives a detailed examination of the red earth or Terra rossa found in the neighbourhood of Palestine. Chemical analysis reveals the fact that it consists chiefly of iron, aluminium and silicates; geologically it is certainly produced by weathering processes. On this assumption it is possible to attribute its formation to a series of colloidal reactions, each of which has been the subject of detailed examination. Hydrolysis of the original rock assisted possibly by the carbon dioxide present in the water effecting the weathering process produces colloidal silica a negatively charged colloid; this is found to exert a not inconsiderable peptising action on iron oxide. At the same time colloidal iron hydroxide is formed by weathering.

Such action does not proceed to any great extent unless the iron hydroxide is prevented by protection from precipitation by electrolytes present in the soil. Reifenberg has shown that excess of colloidal silica, a colloid which is relatively insensitive to electrolytes, will readily protect both iron and aluminium hydroxide thus accounting for the formation of this complex system in relatively large quantities.

The small volume represents an interesting study in the resolution of a complex natural process into a series of colloidal reactions.

The Chemical Laboratory, Cambridge.

E. H. RIDEAL.

In *The Expository Times*, November, 1930, the Rev. J. W. Jack gives a summary of "Recent Biblical Archaeology." This is followed by another, in the February issue; and written as these surveys are in an interesting manner, by one who is well-equipped on the subject, they are a welcome aid to the popularising of current archæological research. We hope they will be continued. The former number also contains an article by Howard H. Scullard, Ph.D., on "The Passage of the Red Sea," comprising an illustration of the incident by the capture of New Carthage by Scipio Africanus in 209 B.C., and a restatement of modern theories concerning the topographical problems of the passage. Dr. Scullard, the author of a monograph, *Scipio Africanus in the Second Punic War*, believes that the illustration in question has not been noticed before: the sinking of the waters of the lagoon at New Carthage which enabled Scipio to storm the town was as unexpected and timely as the sudden wind which enabled the Israelites to cross the Red Sea. We must refer readers to his interesting discussion of a number of points, e.g., the "Scipionic legend" (was a "natural" occurrence treated in a legendary and semi-miraculous way and later "rationalised" by Polybius?). To the illustrations which he gives (including Alexander the Great at Mt. Climax, Josephus, ii. 16, 5), it is, perhaps, worth while to add the story how the younger Cyrus led his men across the Euphrates which at a critical hour fortunately happened to be exceptionally low, and how this was taken as a direct sign of divine favour (*Camb. Anc. Hist.*, vi, 6). In the January issue the Rev. Dr. Christie, of Haifa, writes on "the Wailing Wall at Jerusalem." In A.D. 333 the Bordeaux Pilgrim records that the Jews were allowed to visit the city for prayer and weeping "the pierced stone," or rather, as there is a textual error, "the memorial stone." From the Fall of Jerusalem in A.D. 70 onwards, the Jew could not, and cannot, enter the Temple Court, and as a substitute "he has used all down through the past nineteen centuries the one accessible, convenient portion of the Western Wall." Dr. Christie in the course of a rapid survey of the main facts, comments upon the general toleration, even under Turkish rule, shown to the Jewish claim, and he remarks that the neighbouring Moslems "who are playing so great a part in this movement" (against the prescriptive Jewish rights), are immigrants from Northern Africa during the

last century—as their name (Moghrabiyeh or Westerns) indicates. Professor Langdon writes on points of contact between Isaiah's prophecy against Babylon (Is. xiii, *sq.*) and the Babylonian myth of Nergal-Ir-ra with its terrible threats against Babylon made by this deity of the underworld. "Nabonidus the last king of Babylon seems to be the only one who suits the various details of the Hebrew and Babylonian texts," the writer of Is. xiii, i-xiv, 23, seems to be well acquainted with the Ir-ra myth, and the name Helal (Lucifer?) may represent the "bright god" (*ilu ellu*) as a title of Jupiter, the star of the god Marduk.

The Glasgow University Oriental Society. Transactions, Vol. V. (1923-28), edited by the Rev. F. A. Steuart, B.D. (Maclehose, Glasgow, 1930), testifies to the energy of a society which celebrated its jubilee last year. It contains abstracts of some thirty or more papers, ranging over a great variety of topics from Babylonian number systems to Yiddish. It will suffice to refer, in particular, to the date of the Exodus, discoveries at Ur, and also the recently discovered account of the fall of Nineveh (by Prof. Stephenson), Aden, and some Arab saints (two papers by the Rev. James Robson); Hebrew and Arabic (by Dr. Tritton), the inauguration of the Hebrew University of Jerusalem and *Kusr bint el-Melek* (by Dr. Christie); Aramaic influence in the New Testament (Rev. R. F. Chisholm), the Galilee skull (Rev. T. C. Gordon), etc. In many cases we could have wished that it had been possible to print the papers in full, or at least in a fuller form, but in view of the inevitable financial difficulties in the way of printing even this little book, one must express one's pleasure at the fact that the members of the Society have been able to give us so much as they have. Among the papers of special interest to the Q.S. is Dr. Christie's identification of the "Golden House," built by Herod Antipas, with the "Palace of the King's daughter" (*Kusr bint el-melek*) to the west of the ancient Tiberias, and his view that this, and not Machaerus, was the scene of Herod's festival and the execution of John the Baptist. If the "Golden House" was probably the scene of John's death, may not the King's daughter, in the modern name, be Salome herself, Herodias' daughter? It is true that Josephus places the scene at Machaerus, but Dr. Christie urges that if, as seems likely, Herod's first wife,

Antipas, had already fled to the Arabian (Nabataean) King Aretas, and he had himself married Herodias, there would be a complete breach between the two kings; indeed, Josephus actually seems to imply that Machaerus was then subject to Aretas. Moreover, Machaerus "in any case was an unlikely spot to be chosen for the entertainment of the nobles of Galilee" (Mark vi. 21).

In the Scottish Geographical Magazine, January, K. Boog Watson gives his experiences of Locusts in Iraq. He notes the graphic and accurate description by the prophet Joel of locusts. The inroads of the swarm witnessed by himself did little damage in spite of appearances, and though in this case the attacks were renewed several times, within a few weeks the gardens were as bright as ever. Locusts do most damage in the hopping stage, and there is always grave anxiety lest the measures used against them be not effective. "In the hopping stage," says a report of the Locust Department, "locusts can pass through standing crops and leave them as though they had been cut by a mowing machine." The most important precaution is to destroy the eggs, and in 1927, which was a bad year, the quantity of eggs (in Northern Iraq) was estimated at about 114,000 tons! Aeroplanes have been effectively employed in locating swarms far out in the desert, and "anti-locust work is now part and parcel of the agricultural activities of Northern Iraq." Science is waging a warfare on the pest, "but until the neighbouring countries co-operate with Iraq, as it is hoped they will do in time, there is little chance of exterminating the locust." Yet much has been done "to dispel the *fear* of the locust, which has been, and still all too often is, the greatest handicap to agricultural progress in Iraq." The writer's emphasis upon the necessity of co-operation is the more significant when one recalls the prosperity of ancient Babylonia and its highly developed system of irrigation, in the days when the social-political conditions in general were better organised and the administration sufficiently centralised to counteract the centrifugal tendencies of the Oriental tribes of the desert.

In his *Studies in the Psalms* (Jews' College Publications, No. 12), Dr. Samuel Daiches publishes the first part of a more extensive survey. He reconsiders the meaning of certain Hebrew words in the Old Testament man, son [s] of men, people, heathen, etc., etc.), and

argues that they often meant "man (men) of wealth," "man (men) of position," and very often with the implication that they were wicked to boot. Thus *Adam* (with or without *ben*) denotes a man of high social position, an aristocrat; *goyim* (e.g., in Ps. ix.) refers to wealthy people, people who possess land (later, men who did not live a Jewish life); *enōsh*, contrary to a familiar though unsupported explanation, is not "weak man," but "strong man," and this and other terms are specially used of owners of landed estates. In consequence, in Gen. xxxv, 11, the Divine Promise is to the effect that a nobleman (*gōy*) and a company of noblemen, and kings, shall come out of Jacob's loins; and Ps. ii. is interpreted in a novel manner, not of the nations of the world, but the nobles and lords of the Israelite nation. No doubt it is often possible to find special nuances in such words as gentleman, gent, duke, bourgeois, and the like, and Dr. Daiches has, as will be seen, some unusual light to throw upon class-consciousness in Israel—that is, if his views are correct, and he has not pushed his theories too far.

Lt.-Com. V. L. Trumper sends us a pamphlet, *The Historical Flood, and certain facts: a sheaf of evidences of the Deluge*. In a foreword, Mr. W. C. Irvine trusts that it will be a delight to the heart of all believers in the plenary inspiration of the Scriptures, and, in fact, the pamphlet is compiled and published to justify the most literal interpretation of the biblical narrative, and the writer concludes that he sees no reason to doubt, 2 Peter iii. 6, that the world "being overflowed with water, perished." The recent Mesopotamian evidence for a great inundation is, of course, taken into account, but the author, like many other writers, does not perceive that the conception of history in Gen. i.-xi., comprises only one, and not the only one that was extant among the Hebrews, and that from a careful analysis of its contents it appears that there was also a conception in which the tradition of a destructive flood was lacking, or rather, was excluded.

S. A. C.

THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The office of the P.E.F. will be closed on Saturday, 8th August, re-opening on Tuesday, 8th September. Letters posted to the office during that period will be forwarded by the Post Office, but matters of special urgency may be addressed to Dr. E. W. G. Masterman (Hon. Sec. P.E.F.), St. Giles' Hospital, Camberwell, S.E.5.

The Sixty-sixth Annual General Meeting of the Fund was held on Thursday, June 18th, at the rooms of the Society of Antiquaries, Burlington House, London, W., the Bishop of Gloucester, the Right Rev. Dr. Headlam, in the chair. The meeting was a full one, and the audience were delighted by a most illuminating paper by the Chairman on Archæology and the Bible. Prof. Garstang and the Rev. D. J. Chitty gave accounts of their recent excavations at Jericho and at the Church of St. Euthymius respectively; and the Hon. Secretary read extracts from a report from Mr. Crowfoot on the work done at Samaria-Sebustiya during April-May, 1931, by the Joint Expedition in which the Harvard University, the Hebrew University of Jerusalem, the British Academy, the British School for Archæology and the Palestine Exploration Fund participated. We are glad to be able to print the Bishop of Gloucester's paper in full; of the reports by Prof. Garstang and Mr. Chitty full accounts will be given in the October issue. Attention may be drawn to the interesting air-map of Samaria which we are able to reproduce, below, page 142. See further the account of the Annual Meeting, pp. 121-138.

Professor Sir Flinders Petrie's Annual Exhibition of Antiquities is being held at University College, Gower Street, on week-days from Monday, July 6th, to Saturday, July 25th, 10 a.m. to 5 p.m. and on two evenings, July 10th and 20th, 6 to 7.30 p.m. Lantern lectures on "The City of the Shepherd Kings" have already been given by Sir Flinders, and have afforded some indication of the many interesting and important "finds" that are now being exhibited.

It will be remembered that excavations at Tell el-Ajjul revealed a city of exceptional dimensions about five miles south of Gaza, It was about twenty times the size of Troy and commanded the harbour. Some eighty chambers were discovered and excavated in an area of about two-thirds of an acre. Nothing is said to be later than about 2000 B.C., when the city seems to have been suddenly abandoned—malaria is advanced as a reason. The site is of extraordinary interest for the light it will cast upon the Middle Bronze period, that is, the Hyksos age. A strange feature was the practice of burying animals, generally donkeys, with their masters; once it was a horse and hound. This is of especial interest because it is the earliest example of the domesticated horse in the Near East.

Dr. Sukenik, of the Hebrew University, Jerusalem, sends, too late for this number, an account of a four-lined Aramaic inscription referring to the place where the bones of Uzziah of Judah were deposited. We hope to publish it in the next issue.

Miss Garrod reports important discoveries in the caves near Athlith, which she continues to excavate for the British School of Archæology in Jerusalem, with the generous support of Dr. Robert Mond. In the Mugharat el-School cave, Mr. Ted McCown has had the good fortune to find, in an interesting Mousterian layer, the skull and other parts of a young child. These have been extracted in a single block of hard breccia, and are to be sent to the Royal College of Surgeons for examination. At the Mugharat el-Wad, Dr. van Heerden's party has found on the terrace a series of Mesolithic burials, with circlets and necklaces of shell and bone beads in place. At Mugharat el-Kabara, ten miles off, Mr. Turville Petre has found a Mesolithic deposit, including carved bone sickle-hafts, bone harpoons, and other carved objects. An illustrated note on these finds will appear in *Man* for August, and a fuller account in the *Quarterly Statement* hereafter.

The Eighteenth International Oriental Congress will be held in Leiden, September 7-12, 1931. The fee for membership is £1 (or 12 florins), and 10s. (or 6 florins) for associates. Enquiries should be addressed to the Secretary, Musée Ethnographique, Rapenburg, 67/69, Leiden.

Annual No. 5 (see advertisement on back cover of *Quarterly Statement*) contains Mr. Crowfoot's report on his work at Ophel and the Tyropoeon Valley during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the building and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letterpress and an index. Price 31s. 6d. to non-members.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with the Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

The new plan of Jerusalem on a scale of approximately 1 : 5,000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5s. ; mounted on cotton and folded to size 8 × 6 inches, price 9s. The latter form is the more convenient, as owing to its size the unmounted sheet cannot be sent through the post without a fold.

Churches at Jerash.—A Preliminary Report of the Joint Yale-British School Expeditions to Jerash, 1928-1930, by J. W. Crowfoot, C.B.E., M.A., has been published as Supplementary Paper No. 3 by the Council of the British School of Archæology in Jerusalem, and can be obtained at 2, Hinde Street. Price 5s. The reduced price to members of the P.E.F. or B.S.A.J. is 2s. 6d.

The library of the Palestine Exploration Fund contains some duplicate volumes. They may be purchased, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found on p. 117.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contribution from:—

						£	s.	d.
Lord Boston	...	...	...	...	...	5	5	0

The following is a further list of members who have generously responded to the appeal for increased subscriptions:—

Rev. Thomas Barclay; J. B. Braithwaite, Esq.; Rev. Canon J. N. Dalton, K.C.V.O.; Col. F. S. Hammond; Mrs. Morice; The Bishop of Newcastle; Newcastle-upon-Tyne Public Library; Oberlin College Library; The Bishop of Rochester.

The *Annual Report*, with Accounts and List of Subscriptions for 1930 was issued with the April number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an Index, 1869-1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £15 15s. Subscriber's price £14 14s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5 except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund (see address on cover).

The Committee have to acknowledge with thanks the following :--

Journal of the Royal Anthropological Institute, Vol. lx. The antiquity of civilised man (Huxley Lecture for 1930), by A. H. Sayce. Flint implements of lower palæolithic types from Palestine, by J. Reid Moir.

Liverpool Annals of Art and Archæology, xviii. 1-2. The oldest representation of horsemanship, an Egyptian axe in the British Museum, by the late Dr. H. R. Hall. Cyprus limestone heads, by J. P. Droop.

The Near East.

Antiquaries Journal.

The Scottish Geographical Magazine.

The Expository Times, May. Recent Biblical archæology, by Rev. J. W. Jack.

Journal of Egyptian Archæology, xvii, 1-2. Keftiu, by G. A. Wainwright; Dr. H. R. Hall, by Hugh Last.

Bulletin of the American Schools of Oriental Research, February: Full summary of archæology in Palestine in 1930, by Director Chester C. McCown. April: Recent progress in the late pre-history of Palestine, by W. F. Albright; announcements of the A.S.O.R. in Jerusalem, by C. C. McCown.

American Journal of Philology, lii, 1. Violation of Sepulture in Palestine, by Frank E. Brown.

Report of the United States National Museum Smithsonian Institution, Washington. 1930.

- Annual Report of the Smithsonian Institution, 1929.* Articles on Ur of the Chaldees, by C. Leonard Woolley; Climate and migration, by J. C. Curry, &c.
- Journal of the American Oriental Society*, li, 1.
- Jewish Quarterly Review*. April. Josephus on Jesus, by S. Zeitlin.
- Homiletic Review*.
- Geographical Review* (New York).
- Bulletin of the Metropolitan Museum of Art* (New York). The Theodore M. Davis bequest (including objects of Egyptian and Eastern art.)
- New Light from Armageddon*. Second provisional report of the Oriental Institute of the University of Chicago. By P. L. O. Guy, with a chapter on an inscribed scaraboid by W. E. Staples.
- The Alphabet, its rise and development, from the Sinai inscriptions*. By Martin Sprengling, Chicago, Oriental Institute Communications, No. 12.
- The Museum Journal*, March. Excavations of the Eckley B. Coxe, Jr. Expedition at Meydûm, Egypt, 1929-30. By Alan Rowe.
- The World Calendar*. By Elisabeth Achelis. (485, Madison Avenue, New York.)
- Revue Biblique*, April. The Amorites, by P. Dhorme; weights and measures in the Bible, by A. Barrois; exploration of the south-east of the Jordan valley, by F. M. Abel; dedication of a temple at Jerusalem; a vaulted tomb at Talbiyeh, &c., by Abel and Barrois; the Strata Diocletiana, by M. Dunand; Byblos after four years of excavations, by B. Couroyer.
- Syria*, xi, 4. The sanctuary of Hal Tarxien at Malta, by Mlle. E. de Manneville; the tablets of Mishrifeh-Qatna. by C. Viroilleaud; statue found at Tell Brak, by Poidebard; Hadad and the sun, by R. Dussaud; a Damascus bath of the XIIIth cent. by J. Savvaget.
- Biblica*, xii, 1. The historical background of Judg. iii, 8-10, by Hänsler; the Peregrinatio Aetheriæ, by I. Ziegler; Josh. iii, v, by Wiesmann and Fernandez. xii, 2, the upper church of the Apostles in Jerusalem, by E. Power.
- Associazione Internazionale Studi Mediterranei*, ii, 1. A new statue of the god Resheph, by S. Przeworski.
- Clara Rhodos: Studie materiali pubblicati a cura dell' Istituto Storico-archeologico di Rodi*. Vol. 1, general report of the archæological work, 1912-27, by A. Maiuri and G. Jacopich; Vol. iii, excavations in the necropolis of Ialisso, 1924-28, by G. Jacopi; Vol. iv, excavations in the necropolis of Camiro, 1929-30 by the same; Vol. v, sculptures in the archæological museum of Rhodes, by the same.

Sphinx, Revue Critique.

Archiv für Orientforschung, vi, 4-5. Date and style of the "Hittite" reliefs, by F. W. Fr. von Bissing; Mitannian *maryannu* ("chariot warrior") and the Canaanite and Egyptian equivalents, by W. F. Albright; reports of excavations, &c.

Zeitschrift des Deutschen Palästina-Vereins, liv, 1-2. The geology of Palestine, by Blanckenhorn; the Byzantine Gilgal, by A. M. Schneider; the Kalypto-graffito at Marissa, by L. Lamer; archaeological report, by K. Galling.

Zeitschrift für die alttest. Wissenschaft, 1931, 1-2. Phœnician religion, by E. Meyer; the legitimate religion of Israel, by E. König; *beena* marriage in Israel, by J. Morgenstern, &c.

Palästina und seine Kultur in Fünf Jahrtausenden, 3rd ed. By Peter Thomsen. Hinrichs, Leipzig, 1932.

Orientalistische Literaturzeitung, April. A Cretan charm in Egyptian, by H. T. Bossert.

Bible Lands (Jerusalem), April. Hebron.

Bulletin de l'Académie des Sciences, Leningrad.

Jüdische Gräber Jerusalems um Christi geburt. E. L. Sukenik, Jerusalem, 1931.

Al-Mashrik, April. Dilebta of Lebanon, by Abbé Raphael; Kannubin of Lebanon, by P. A. Chibli.

La Revue de l'Académie Arabe, Jan.-Feb. Photographs of the members of the Arab Academy.

The Creation Fall, and Deluge, by the Rev. A. H. Finn.

The Author of The Pentateuch, by the Rev. A. H. Finn.

The Third Wall of Jerusalem, an account of Excavation, by E. L. Sukenik and L. A. Mayer.

From Mr. Pilcher: *Journal of the Royal Asiatic Society*.

See also below p. 173.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books:—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864); published about 1874.

K. von Raumer, *Der Zug der Israliten*. (Leipzig, 1837).

Lagarde, *Onomastica Sacra* (1887).

Le Strange Palestine Under the Moslems (1890).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson. Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath* already in the Library; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

FORM OF BEQUEST TO THE PALESTINE EXPLORATION FUND.

I give to the Palestine Exploration Fund, London, the sum of——— to be applied towards the General Work of the Fund; and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

NOTE.—*Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

PALESTINE EXPLORATION FUND.

SIXTY-SIXTH ANNUAL GENERAL MEETING.

THE Sixty-sixth Annual General Meeting of the Palestine Exploration Fund was held at the rooms of the Society of Antiquaries, Burlington House, London, W.1, on Thursday, 18th June, 1931, at 4.30 p.m., under the Chairmanship of THE BISHOP OF GLOUCESTER (The Right Rev. A. C. Headlam, D.D.), who delivered an address, during the course of which he traced the relation of archæological discovery to biblical history and, secondly, its relation to theology. Prof. John Garstang spoke of his recent excavations at Jericho; the Rev. D. J. Chitty gave an account of his excavations at the Church of St. Euthymius at Khan el-Ahmar, and Dr. E. W. G. Masterman submitted a report from Mr. J. W. Crowfoot, on the work done during April and May, 1931, by the Joint Expedition to Samaria-Sebustiya.

Apologies for absence were received from Principal Sir George Adam Smith, Professor R. A. Stewart Macalister, Rev. Dr. W. Ewing, Sir Robert Newman, M.P., Mr. Spencer Leeson (Headmaster of the Merchant Taylors' School), and Mr. O. G. S. Crawford.

The Minutes of the Annual Meeting held on June 12th, 1930, having been read, were confirmed and signed by the Chairman.

THE HON. SECRETARY (Dr. Masterman) then read the names of seventeen subscribers who had qualified during the past year, and they were duly awarded full membership.

Capt. C. H. Ley, Director of Survey Dept. Government of Palestine, was elected a Member of the General Committee.

Colonel Sir CHARLES CLOSE (Chairman of the Executive Committee), in moving the adoption of the Annual Report and Accounts for the year ended 31 December, 1930, referred to the great loss sustained by the death of that very distinguished scholar and friend of the Fund, Dr. H. R. Hall, whose passing had necessitated changes in the Executive Committee. Because of the interesting programme before the meeting the speaker refrained from adding anything further in regard to the Report, but he felt sure all present would wish him to give expression to the warmth of their welcome to the Bishop of Gloucester, especially as he was a very old friend of the Fund. (Applause.)

Sir CHARLES MARSTON formally seconded, and the Report and Accounts were unanimously adopted.

On the motion of Dr. P. d'E. Wheeler, seconded by Mr. W. H. Boulton, the Executive Committee was elected as at present constituted.

Messrs. Turquand, Youngs & Co. were re-elected Auditors for the ensuing year at a fee of ten guineas.

CHAIRMAN'S ADDRESS.

The CHAIRMAN (the Bishop of Gloucester) then delivered the following address :—

“I must begin by expressing my thanks to you for the honour that you have done me in inviting me to take the Chair at your Annual Meeting, and to deliver an address on this occasion. Although not an archæologist, I have always taken the greatest interest in archæological exploration generally, and in that of Palestine ; and at one period, when I had greater leisure than I have at present, I studied the results of Palestine Exploration somewhat minutely, and formed certain opinions which I may be presumptuous enough to put before you to-day.

I should like to begin by congratulating the Palestine Exploration Fund, and its very close ally the British School of Archæology in Jerusalem, on the interesting and fruitful work that they have been able to carry through. In particular I would refer to the renewed exploration of Jericho, which has been made possible by the munificence of Sir Charles Marston and, I believe, the late Lord Melchett ; also to the very brilliant work which has been accomplished at Jerash by Mr. Crowfoot and Mr. Jones, of which I am glad to see there is a preliminary report on the Churches at Jerash.

As I am going to devote the greater part of my address to other topics, I should like here to emphasise the interest and importance of these investigations into the early history of ecclesiastical architecture. Many years ago I was able to make a small contribution myself by the publication of our investigations of a Church in Asia Minor at Kodja Kalessi, which played a considerable part in the investigations of Professor Strzygowski. The explorations at Jerash are contributing to our knowledge of the transition from the late Roman Greek building to the Early Christian. I am glad that

we are to have from Mr. Chitty some notice of the Byzantine work which he has been carrying on, as well as of the work of an earlier period by Professor Garstang.¹

You have generally on these occasions been addressed by someone who has an expert knowledge of the subjects on which he speaks to you. To-day I am to address you as an amateur in these things : I have not expert knowledge. My duty is of a different character ; it is to attempt to estimate from an outside point of view the value and importance of your archæological investigation. The two points on which I wish to speak to you to-day are, first of all, the relation of archæological discovery to Biblical history and, secondly, its relation to theology.

Archæology and the Bible.

Now I am going to begin by giving you two warnings. I want to suggest to you, in the first place, that you should be very suspicious of all archæologists who tell you that they have proved conclusively the truth of Holy Scripture. I say that for several reasons. You must realise that the truth of Holy Scripture in any serious sense does not really depend upon those questions of historical accuracy which can be decided by archæological discovery. In many points the Bible is not historically accurate, and it is really not important that it should be. Moreover, as we shall see, archæology has not reached that degree of exactitude which enables it to speak with absolute authority in these matters. And, lastly, you should always suspect the methods of those archæologists who are obviously too anxious to arrive at the conclusion which they have put before you. An excessive desire to prove a difficult point in the Bible accurate often leads to imperfect archæological deductions.

Having said that, on the other side I should ask you to be equally distrustful of those people who are so anxious to tell you that archæology has undermined the truth of Holy Scripture. It is quite incapable of doing that, and the records, both in relation to the Old and New Testament, of archæological and historical discoveries which are supposed to disprove Scripture, contain an amazing amount of errors. All my life I have found myself dealing with imperfect and one-sided historical deductions which have been put forward as the result of historical investigations.

¹ See page 137.

What you have to realise is that, if we are to approach these subjects from a scientific point of view, our method must be something quite different. We have for the reconstruction of the history of the ancient world two sources. We have, first of all, the literary records, and the literary records in regard to Palestine and the pages of the Old Testament are of unique value and interest. We have, secondly, the result of archæological investigation and discovery, and it is our business, by combining these two sources, to construct as best we can the history of the ancient world. It is an extraordinarily fascinating study. It is one often of great difficulty for our information is imperfect. Many conclusions which we arrive at must be tentative in character. But I think that really in recent years material has been brought together which will enable us to make very great progress, and it is being continually added to. The result of archæological investigation in recent years has been extraordinarily important. Every year fresh information is obtained, and methods more scientific in character are gradually being developed. There is no reason, as the progress of discovery goes on, why our information should not become much more complete and accurate. We have not yet been able to digest all that has so far been discovered. I am not quite certain that the investigator himself is generally a very good historian, and it takes some time for the literary critic to master the result of archæological investigation.

The Bible as an Historical Source.

I would say something about these two sources, and first about the Bible. The accounts that we possess in the Bible of the early history of Israel are, in their present form, composite in structure; they are late compilations—a combination of tradition, of antiquarian research, and of pious imagination. When we have separated those portions which seem to belong to the earliest historical sources, we find our information fragmentary, and that we are dealing with documents still separated some 500 years from the events they describe. The exact narratives which we possess of the Exodus, for example, were the work of late scribes, who attempted by means of local knowledge and genealogical investigation to give geographical and chronological exactness to the story. Many of the events in the history of Israel seem to have been recorded in early poems, which lived on in the memory of the people. Genealogies were remembered, or constructed, and much of the early chronology

seems to have been based upon the number of generations which were believed to have lapsed between the different events. But the traditions themselves were so strongly bound up with the history of the people, and had such an influence on their development, that there is nothing to justify an extreme scepticism. It was certain great experiences of the Hebrew people in the past that made the nation what it was. The effect of these events on their thoughts naturally led to some exaggeration in later narratives, and the development of a mythical element. But the main lines of tradition appear to represent a much more probable story than the conjectures which some modern critics have attempted to substitute for them.

It must not be imagined that because some of the books of the Old Testament are not always entirely trustworthy as historical stories, that therefore, they are without historical value. The narrative, for example, of the Book of Joshua is a finished literary story written at a later date in accordance with the religious ideas of that time. It may be difficult sometimes to separate the historical truth from the later reconstruction, but the historical reconstruction, as showing the spiritual significance of the history of Israel in the building up of the life of the nation, is an historical document of first-rate importance. Exactly the same may be said about the narrative of the Book of Chronicles. It is the business of the critic to distinguish the later additions from the early sources. There can be no doubt that the work represents a reconstruction of the history in accordance with the ideals of the theocracy, but that is itself an historical fact of importance. The Bible contains a very varied collection of literature, legends, folklore, early traditions, historical narratives, prophesy, poetry, records of social life, religious and secular laws. For the purpose of understanding the religious history of Israel, it is far more illuminating than a series of correct and accurate Chronicles would be.

Archæology and History.

When we turn to our archæological evidence, we find that there is equal need of criticism, and often of suspense of judgment. As regards Palestine, we have two sources. We have the records of Assyria and Egypt, which have the enormous value of being largely derived from written sources, and we have the actual archæological investigations in Palestine. As regards Assyria and Egypt, it is important to ask exactly what measure of accuracy has been

attained. The chronological reconstruction of the history of the later Assyrian Empire we may, I think, accept as almost completely accurate, and very great progress has been made for earlier periods. I gather that back to the year 2000 B.C., the possible error in our dating is not much more than 50 years; and even for the third millennium before Christ a very considerable amount of accuracy has been attained. If I turn to Egypt, it appears that from the time of the expulsion of the Hyksos we may, with reasonable assurance rely on the chronology and on the general accuracy of the history. But before that date there seem to be still considerable discrepancies, and, however certain some of our authorities may be of the correctness of their conclusions, looking at the results from outside, we cannot accept them with any great degree of confidence, when we find that persons of equal eminence and authority hold quite different opinions. However, for our purpose the chronology of Egypt may be considered to be fairly exact.

When we turn to the archæology of Palestine, what strikes one is the remarkable deficiency of written records. We have a certain number of Egyptian inscriptions: we have a few cuneiform tablets. When we reach the periods of the Kings of Israel, we begin to get a very small number of Hebrew inscriptions. But, speaking generally, our written records are very slight, and we are driven back to the other method of archæological investigation—the succession of periods of civilisation. Our investigators have divided the history of Palestine into an Early, a Middle, and a Late Bronze age, an Early, a Middle, and a Late Iron age; and quite clearly we can trace the general succession of periods of civilisation. But when we begin to ask what accuracy has been attained, we find that the limits of possible error are very considerable. I turn to the valuable discussion of Professor Garstang on the date of the destruction of Jericho. He tells us that “it is impossible to assign a reliable limit to the beginning of the Bronze age. If the date of 2500 B.C. be accepted as a working hypothesis, it is liable to an error not smaller than 500 years.”

And, again, “the beginning of the Middle Bronze age is equally uncertain”; and, again, “if a working hypothesis accepts 1600 B.C. to 1200 B.C. as the limits of the Late Bronze age, it is admitted that the earlier date is liable to an error of 100 years or more.” If this is still true (and I think it is) it is obvious that while we may arrive at interesting conclusions, we cannot feel that we have

attained such a degree of accuracy that we can use them with certainty to correct or corroborate our literary records. In some cases we have the evidence of Egyptian remains—scarabs, and so on—but small objects of antiquity may easily get misplaced. The other method of dating which has been worked out with splendid industry and care is the succession of pottery, but pottery by itself must be always very uncertain—the succession of forms may vary to a considerable extent in different places.

I remember once, many years ago, when I was studying the early history of civilisation in Scotland, I found it recorded that in some of the remoter islands of the Hebrides the same form and character of pottery was in use in the 19th century that had continued from Neolithic periods. I think we owe an enormous debt to Sir Flinders Petrie and his assistants for the splendid work that they have done in tabulating the forms and character of pottery; and I do not doubt that they will attain greater and greater precision. But I do not think that any complete accuracy can be reached by such archaeological methods alone. In particular I should like to refer to the work of Mr. Garrow Duncan on Palestinian pottery, and to the very patient investigations carried out by Professor and Mrs. Garstang, with regard to the twenty or thirty thousand pieces of pottery which they had discovered at Jericho.

We must recognise then that whether we look at the history of Israel from the historical or from the archaeological point of view, we cannot at present expect any great precision or any great certainty in our results, but we can hope that by careful and patient historical reconstruction we may gradually build up a real history. But I should like to remind you of one thing. Often, when we cannot be quite certain of our dates, and when there are many details of history on which we must agree to suspend our judgment for the present, we are able to describe the character of a period of civilisation in a way which is very illuminating. The result of Palestinian discovery in presenting to us a picture of the walled cities of Palestine before the Hebrew invasion, and of the character of Canaanite civilisation and religion, is most illuminating, and its importance should be emphasised. In the same way, the reconstruction of the history behind the Book of Judges may be difficult, but that book which contains some of the earliest records of the history of Israel gives us a brilliant picture of a primitive state of society and a most illuminating account of early religious and social ideas.

The Date of the Exodus.

On one point I am going to ask you to be a little dogmatic. I think you must quite definitely make up your mind to discard what has come to be the conventional date for the Exodus. For some reason or other the date has been fixed (a) of the oppression to the reign of Rameses II, and (b) of the exodus to the reign of that Pharaoh, whom I used to call Menephthah, but now apparently must call Merenptah. Nearly twenty years ago I had to investigate the matter, and came to the conclusion that this date was certainly incorrect. I am glad now to find that Professor Garstang has told us that the arguments in favour of it are of a most flimsy character. That does not express the real position. The real position is that the arguments against it are conclusive. People seem to have been so wedded to the idea that they have continued to hold it, in spite of the inscription of Merenptah, which definitely speaks of the people of Israel as being plundered by that King in Palestine: "Carried off is Askalon: Seized upon is Gezer. Israel is desolated, her seed is not. Palestine has become a widow for Egypt." To try and reconcile that with the late date of the exodus is historically impossible. That date is entirely inconsistent with Biblical chronology, and I have for long wondered why historians have adhered to a theory which is inconsistent with the evidence.

Tell El-Amarna Tablets.

If that be recognised then I would ask for a more intelligent consideration of the evidence given us by the Tell el-Amarna tablets. Here we have historical documents dated to a period which almost exactly corresponds with the traditional date of the Conquest of Palestine. They give a description from the point of view of Egyptian Officials and Tributary Kings, of the invasion of Palestine by people who bear the name of Habiru. (There appears to be some doubts as to the pronunciation, but none as to the transliteration.) Philologically the word is the same—Hebrew. The events described correspond quite clearly to those put before us in the Book of Joshua. It is really contrary to anything approaching probability that within a period of 150 years there should have been two invasions of Palestine by two different sets of people both bearing the name of Hebrew. There are, of course, difficulties, and there are problems which have not yet been solved. These invaders are sometimes described by their name of Habiru and sometimes by

an idiograph. It is not proved that the people are the same, but practically there is little doubt. There is a difficulty in the fact that there is no resemblance between the names in Joshua and the names in the Tablets, but the resemblance between the two records is far too great for us to dispense with this extraordinary interesting historical evidence; and I think, as far as I can judge, by the study of archæological discovery that there will gradually be a general agreement to the earlier date of the Exodus, and to the act that the Hebrew invasion recorded in the Bible is the same as that described in the Amarna Tablets.

THE SETTLEMENT OF THE HEBREWS IN PALESTINE.

I propose now to examine shortly the settlement of the Hebrews in Palestine, and to do it from three points of view; from that of the Egyptian records, from that of the Hebrew tradition, and from the point of view of Palestinian Archæology.

In earlier days the whole of Syria had been subject to the influence of Babylonian civilisation. We find the cuneiform script the normal method of writing. It was during the 18th dynasty (1580-1350) that Egypt first became closely connected with Syria. Following the expelled Hyksos, the Egyptian armies extended their conquests. Thothmes I made a raiding expedition to the Euphrates and under Thothmes III (1501-1447) the complete conquest of Southern Syria was accomplished.

We have a detailed account of the first campaign of Thotmes III in the 23rd year of his reign (1478 B.C.), in which he attacked and defeated near Megiddo a great combination of the northern tribes under the king of Kedesh on the Orontes. It is of great interest, for it throws light on the civilisation of Palestine at that time. The plain of Esdraelon, the most fertile part of the country, was the scene of the exploit, which shows us the Egyptians fighting against an organised and civilised force. The people of Palestine dwelt in walled cities which demanded a regular siege. As the Book of Numbers reported, "the people that dwell in the land are strong, and the cities are fenced and very great." Archæology is revealing to us how strong these cities were. The spoil of the Egyptians was rich and varied—chariots, armour, gold, silver, rare woods—all signs of wealth and skill and civilisation.

For the next hundred-years Palestine was ruled from Egypt. The cities were in the hands of tributary kings, of native rulers, or Egyptian governors. There were garrisons in various places. The local governors were under the authority of Egyptian inspectors, and Egyptian trade and commerce extended throughout the whole of the district. It was at the close of the reign of Amenhotep III (1411-1375), or the beginning of that of Amenhotep IV (1375-1358) that the change came. From the north there were pressing down the Hittites, from the east came the great horde of invaders described in the Tell el-Amarna tablets as Habiru, whom we know as Hebrews.

This identification makes the whole history intelligible. The power of the Canaanites had been weakened by the Egyptian conquest, and when slackness and indifference prevailed in Egypt, the cities defended only by Egyptian troops made little resistance. Moreover, at the same time the Hittites were advancing from the north and weakening the Egyptian strength. For the next fifty years Palestine was independent of Egyptian rulers. During that time the Hebrews established themselves in the mountains, in the country districts, and in some of the cities, but not permanently in the low-lying coast line.

Then came the great kings of the 19th dynasty, Seti I (1313-1292), Rameses II (1292-1225) and Merenptah (1225-1215), and the Asiatic wars were renewed. Seti I reconquered the desert route. Far away to the north Rameses II fought his great battle at Kadesh, on the Orontes; and when Canaan revolts it is the cities of the west and the cities of the plain of Esdraelon that he reconquers. The coast road and the road north through the plain of Esdraelon must be held to allow the Egyptian armies to advance, but the Hebrews in their mountains will be only partially affected by the Egyptian advance. Once under Merenptah the Egyptian armies, we are told, defeated Israel.

It was at this time that those movements of population began which so profoundly affected the history of the eastern Mediterranean. It was in the year 1190 that occurred the great invasion of Asia Minor and Syria by the mixed races that were fleeing before the Achæans. They were defeated by Rameses III on the Syrian coast land and then settled there. From this time dates the settlement of the Philistines, and from this time for more than two hundred years, until the time of Shishak (945-924) the land is free from the armies of Egypt.

Now we turn to the Hebrew account of these events. According to Biblical chronology the invasion of Palestine took place about the year 1400. The date represents later calculations and need not be considered quite exact.

It was from the desert east of Moab that the Hebrews made their descent into the land of promise. It was there that there had gathered together one of those great desert hordes that are accustomed to unite for such an enterprise. It is characteristic of the tribal form of organisation that it is capable of great elasticity. A number of tribes combine together under a common leader for a common purpose. It is not probable that all the Israelites were of the same kindred. We know that Kenites and Kenizzites, Midianites and Edomites, were associated with them. What is essential to recognise, as it alone explains their history, is that they were one people with a quite definite unity. Their history represents them as starting with a unity which was fundamental and conscious, with definite characteristics which separated them from other races. This unity was fundamentally religious. They were all alike worshippers of Jehovah. It is significant that we are particularly told of Caleb the son of Jephunneh, who was a Kenizzite, that he "wholly followed Jehovah the God of Israel." This unity was based upon three great traditions : the first is the salvation of the Israelites from the Egyptians. "Sing ye to the Lord, for he hath triumphed gloriously ; the horse and his rider hath he thrown into the sea." So sings a probably ancient song. The second is the memory of the great event of Mount Sinai, or Horeb, a district, probably to the east of Edom. Again, an early song tells us : "the Lord came from Sinai ; and rose from Seir unto them ; He shined forth from Mount Paran, And he came from the ten thousands of holy ones." And then, thirdly, there is the memory of Moses as the law-giver and leader of the people.

The unity was a unity of custom and usage, derived partly from their nomadic life and partly from their special religious experience. They were Bedouins of the desert, with the customs, the prejudices, the traditions of a wandering people. They had heard the thunder of Sinai when Jehovah came down upon the mount. They had been bound to Him in a solemn covenant, and their customs had been sanctioned by divine authority. All this had been accomplished under the leadership of Moses, and when he died a successor to him was found in Joshua. Traditions of an earlier sojourn in Palestine

made it the promised land. They returned, as it has happened at other times in history, as an army and a nation. Their first conquest was on the east of Jordan. Then they burst into the western land. They passed over Jordan, the walls of Jericho fell before them, and at Gilgal they established themselves in a permanent camp. Our main narrative of the conquest of the land is a finished literary work, telling the story from the point of view of a later age. It was based on earlier accounts of which fragments are still preserved to us. No doubt the later narrative has been idealised, but it is not improbable in itself and there is no reason for holding that in its main outlines it is unhistorical.

All analogy would suggest that the tribes of Israel had united in common action and been directed by a common leader. They would not have succeeded otherwise. Nor can we doubt the formidable character of the invasion. The record of the Bible exactly corresponds to the record of the Amarna tablets. "And it came to pass, when all the kings of the Amorites which were beyond Jordan westward and all the kings of the Canaanites which were by the sea, heard how that the Lord had dried up the waters of Jordan from before the children of Israel, until we were passed over, that their heart melted, neither was there spirit in them any more." Here is what the Egyptian record tells us: "the King has no longer any territory; the Habiru have devastated all the King's territory." "The whole of the land of my Lord the king is falling away to the Habiru." A study of these letters shows us that the whole of Palestine from north to south was either subdued or in danger, and that consternation was spread everywhere. Evidence alike of Egyptian and Israelite origin tells us that the invasion was of a formidable character, a great irruption of a people from beyond Jordan, the whole country was overrun and many cities were occupied. The ultimate result of the campaign was the establishment of the Israelites in three districts. Judah, to the south, separated from the tribes of the central district, and, these again, separated from the tribes of the northern district by the cities of the plain of Esdraelon. Although there is no doubt that the cities of the plain, Gaza and Askalon and Ekron were threatened, it is not probable that any of them were taken, as the Book of Judges asserts. The true tradition undoubtedly was that "the Israelite could not drive out the inhabitants of the valley, because they had chariots of iron." A string of Canaanite cities, Jerusalem, Gibeon,

Chephirah, Beeroth and Kirjath-jearim, parted Judah from the Israelites of the north. North of the central district were the cities which the Hebrews could not take, Bethshean, Taanach, Dor, Ibleam, Megiddo. In the districts still further to the north there was a considerable mixture of the older population left.

The subsequent history may be divided into three periods, that of the earlier Judges, the wars with the Philistines, and then the establishment of a monarchy. It was ultimately the invasion of a more disciplined and formidable enemy of western origin that caused the unity of Israel to be realised in a political organisation. The picture that is presented to us by this early history is that of a wild and stormy race, exhibiting the virtues and vices of its desert origin, tenacious of its own customs, intolerant of those of other peoples, hard and cruel to its enemies, harsh in the justice administered at home, separated from all the nations that surrounded it by a definite and unique religious belief.

Now let us turn to Archæology. Among the cities especially mentioned as conquered by the invading Hebrews was Lachish, situated on the seaward slopes of Judah, and it is interesting to find that Abdihiba of Jerusalem complains that this is one of the cities that had given the invaders food, oil and all necessities. The excavations of the mound of Tell Hesy, which probability identifies with Lachish, have presented a transcript of the history of a Palestinian town. In a period which extended from about 4000 to 300 B.C., we have traces of eight successive cities. It was one of the fortified cities of Canaan, with a fine and imposing situation on the spurs of the hills, and a strong and lofty wall. The two earlier cities represent the beginnings of civilisation, and the third (1500-1350) belonged to the period of the Egyptian empire. Scarabs of the 18th dynasty and a cuneiform tablet bearing the name of its governor Zimrida, testify to its date. This city was destroyed. Here there is a record of the work of the invading Hebrews, and a thick layer of ashes separates it from the next period. The fourth city reflects the period of the Judges, from 1300 to 1000, and its date is shown by the presence of Phœnician pottery and of scarabs of the eighteenth and nineteenth dynasties. The fifth and sixth cities belong to the period of the Jewish kings. We know how the place was fortified by Rehoboam, and we have, both in the Book of Kings and the cuneiform records, an account of the siege of the city by Sennacherib. The two later cities belong to the period which

follows the Exile. We have thus preserved for us, and depicted in outline, the history of a typical city of Judah from its earliest foundation in prehistoric days until the close of Israel's history as a nation. It was in the exploration of Tell Hesi that Sir Flinders Petrie laid the foundation of the scientific archæology of Palestine. We turn next to Bethshean. The admirable excavations carried on there by Mr. Rowe and carefully described, we have been following from year to year. Here we have one of these cities, as all evidence shows, which was not conquered in the original Hebrew invasion. It was clearly one of the centres of Egyptian influence in Palestine, and that was natural, for its situation commanded one of the great roads into the interior. The records so far explored date from the Hyksos period onwards. We have temples of Thothmes III, of Amenhotep III and IV, of Seti I, and of Rameses II, and a stele of Rameses III. Afterwards, from 1167 onwards, we find the Philistines occupying Bethshean, and it was not until about the year 1000 that it was conquered by the Israelites. These two records illustrate for us very fully the different history of the Canaanite towns in different districts. The third instance I will only refer to is that of Jericho. You will have a far more accurate account given of the discoveries there by Professor Garstang.¹ All that I would emphasise now is that it seems to be fairly well established that the ancient Canaanite city was destroyed sometime about the year 1400 and the existing walls bear the mark of its destruction.

It has only been possible for me to sketch this history. There are many outlines which might be filled in. I have no doubt as an amateur and outsider you may detect inaccuracies in my work. I am only venturing to put before you the way in which it seems to me, by a careful study of these varying records, we are enabled to construct a trustworthy historical account of the settlement of the Hebrews in Palestine.

Archæology and Theology.

I now pass to my concluding theme, the relation of Archæology to Theology. What I would wish to emphasise is that, as it seems to me, the theological value of the Old Testament depends in no way on those facts with which archæological investigation is concerned. We have learnt to recognise that the reconstruction of history, which

¹See page 136 *sq.*

Biblical criticism has, to a certain extent, made necessary, leaves the religious value of the Old Testament unimpaired. So far as I can judge, the result of archæological investigation is more and more to make clear the historical sequence of the history of Israel, while sometimes it corrects inaccurate dates or inaccurate historical tradition. As helping us to realise and understand the history, it is of great and growing importance, but the spiritual value of the historical tradition is independent of these questions. The characteristic of the people of Israel, with their belief in Jehovah, an aniconic religion, a religion definitely associated with moral teaching—this is depicted for us throughout the history. The great Prophets of the eighth and seventh centuries before Christ, the religious ideals of the Exile, the building up of the Theocracy, the ultimate consummation in Christianity—all this is firmly established, and is not dependent upon these historical investigations.

And I would venture to suggest to you that it is unnecessary to trouble yourself about the historical character of many of the Old Testament Miracles. I remember how valuable to me was the teaching I received from my great Head Master, Dr. Ridding, at school, when he pointed out the significance of a passage in the Psalms : “ When Israel went out of Egypt, the house of Jacob from a people of strange language. Judah was his sanctuary, and Israel his dominion. The sea saw that, and fled : Jordan was driven back. The mountains skipped like rams, and the little hills like young sheep. What aileth thee, O thou sea, that thou fleddest ? thou Jordan, that thou wast driven back ? Ye mountains, that ye skipped like rams ; and ye little hills, like young sheep ? ” Surely here we have a poetic description of events, which were no doubt providential and wonderful, but which we need not think are necessarily described in the ordinary language of a chronicler’s prose. We don’t really think that the mountains skipped like rams, and we need not think that the other events happened.

But if we do not need archæology to prove, and if archæology cannot disprove, the providential character of the religious history of Israel, it is full of valuable illustration. I was much interested when I read in those admirable accounts of the excavations at Bethshean that we owe to Mr. Rowe, that there was no temple or other building marking the period of Israel’s occupation. He suggested that the Israelites had used the earlier temples. Surely what had happened was that these iconoclastic monolatrist con-

querors had destroyed the temples of the Idolaters and needed none for themselves. And in the extraordinarily learned investigations of Dr. Stanley Cook (in *The Religion of Ancient Palestine in the Light of Archæology*) we have full evidence of the strange early customs of the Caananite people, and we see how this or that Canaanite custom may have been adopted and preserved by the Israelites, who were, as we know, influenced by their environment : and we can study the mythology of the Greco-Roman age, but we have practically no records of the religion of Israel. It is this absence of record that is so supremely important.

I would like, in conclusion, to sum up what has been my aim and purpose in this address. It has been to emphasise the extraordinary interest for any one who cares for the Bible record, of the archæological discoveries which have been made in Palestine. It is to express a hope that careful, accurate, and scientific study of the greatly increasing body of material will enable us with greater and greater accuracy to sketch the history, but it is also to express a hope that these investigations will be carried on in a sober, scientific spirit, that you will not be too anxious either to find discrepancies with the Biblical narrative or to find corroboration. It is the scientific reconstruction of the whole life and history of the ancient world which is being gradually revealed to us by the multitude of patient investigators whom we welcome so warmly and study with such interest."

PROFESSOR GARSTANG then showed a few slides illustrating his recent excavation of Jericho with an account of some of the leading features of the work accomplished. Briefly summarizing his discoveries, period by period, he drew attention to the indications of the effects of earthquakes, remarking that he was less disinclined than formerly to admit that an earthquake may have dislocated the walls previous to the final burning of the city. A number of houses of the Early Bronze Age were complete enough to enable him to get the whole plan with gateway and hearth stone in position. A small ebony head of a bull was of interest for its style, which was if anything, Babylonian. Having by now examined over 100,000 fragments of pottery from all stratifications, Professor Garstang confirmed his earlier conclusion that there was nothing in Jericho to associate it with the Mycenæan phase of culture which permeated the country in the latter half of the Late Bronze Age and of which about 1400 B.C. is the chronological limit. The fine necropolis of

the first half of the Middle Bronze Age (from 2000 B.C. onwards) has already disclosed an extraordinary splendid series of some 500 vases in practically perfect condition; they are of various types, perhaps the most striking being that with a sharply-pointed base.¹

The REV. D. J. CHITTY then gave an account of his excavations at the Church of St. Euthymius at Khan el-Ahmar. Little has been done in the way of research in the monasteries in the Judæan wilderness. They date from the Confessor St. Chariton (early fourth century A.D.), and St. Euthymius may be regarded as the founder of specific Palestinian monasticisms (early fifth century). This monastery commenced as a cell in which the saint lived: others joined, and a group of cells grew up around a small church. It had a chequered history, and the speaker enquired whether there was evidence to prove that it was destroyed by Saladin or continued to the time of Beibars. It was then used as a Khan. The architectural problems are of great interest, and Mr. Chitty showed a series of slides, one representing a wood cut from a Russian book of 1777, which gives several of the Holy Places in Palestine, among them one which may conceivably be a conventional picture of the monastery.²

Dr. E. W. G. MASTERMAN then read extracts from the report sent by Mr. Crowfoot on the work of the Joint Expedition to Samaria-Sebustiyâ, with views, including an interesting air-map of the site of Samaria (see facing p. 142.)

Prof. J. L. MYRES proposed a hearty vote of thanks to the Bishop of Gloucester not only for presiding, but for his exceedingly suggestive and illuminating address. He remarked that in the course of his most interesting and, in many ways, fresh reconstruction of the general course of history during the period of formation of the Hebrew people, the Chairman had uttered words of advice and caution of which many, from time to time, stood in need. Those present were very grateful and looked forward to the pleasure of reading the address at leisure. The meeting would also wish to accord thanks to Professor Garstang for his account of the most recent work at Jericho, and, thought him, express to those who had so liberally helped recognition of the very valuable contributions they had made towards rendering the work possible. To Mr. Chitty also thanks were due for having detailed the results of a

¹A fuller report of Professor Garstang's work at Jericho will be published in the next issue of the *Q.S.*

²Mr. Chitty will give a fuller account of his work in the October issue.

difficult and complicated but, at the same time, successful disentanglement of the ruins of the curious little settlements in the Wilderness, and particularly for having illustrated the fact that the history and antiquities of Palestine while stretching up in the direction explored by Professor Garstang went down into mediæval and often to Saracenic times. Mr. Chitty had further illustrated another aspect in which literary sources and material remains stood to one another, but if it had not been for the meticulous care with which the peculiar habits and somewhat original notes on architecture of those holy men had been described, even Mr. Chitty would not have been able to make sense of some of the buildings he had attacked. All present would be grateful to Dr. Masterman for his happy thought in extracting from Mr. Crowfoot a first report as to the work being carried on in Samaria. Last but not least the speaker included in the vote of thanks an expression of appreciation of the kindness of the Society of Antiquaries in lending their rooms for the purposes of the meeting.

The vote of thanks having been accorded amid hearty acclamation,

The CHAIRMAN, in returning thanks, said he had listened with great interest to Professor Garstang's address and could not help thinking that the two hours spent at that meeting represented a really small amount of time to spend on such interesting investigations. On behalf of the others included in the vote of thanks the Chairman felt sure he was right in saying that they, with him, were exceedingly glad to be allowed the privilege of addressing the gathering. What the other three speakers had said brought home the way in which slowly and steadily the whole history of the extremely interesting area reported on was being gradually reconstructed. There was no doubt that the "palaces" of Jeroboam II, of Omri and Ahab represented a most interesting period in the history of the Northern Kingdom. He was probably correct in assuming that there was some faint hope that written records would ultimately come to light as a result of the investigations. It was absence of such records in the history of Palestine which was, to a certain extent, disappointing. In conclusion, the Bishop expressed his thanks to the Palestine Exploration Fund and to the British School of Archæology in Jerusalem for the steady persistent interesting work they were doing in illustrating and enriching knowledge of the history of Palestine.

The proceedings then terminated.

WORK OF THE JOINT EXPEDITION TO SAMARIA- SEBUSTIYA, APRIL AND MAY, 1931.

BY J. W. CROWFOOT, C.B.E., M.A.

Five sites inside the Herodian city have been leased for excavation during the present season. Three of them lie close to areas investigated by the Harvard expeditions twenty years ago: the first of these, Q., is on the summit of the old acropolis, which is called by the natives el-Qa'adeh like the corresponding site at Gezer; the second, D., which is part of the area called Qata'in el-Deir, "the Lands of the Monastery," lies south of Q. on a terrace above the columned road: the third site, B., lies over three hundred yards further east, a garden south of the basilica and south-west of the threshing-floor, Hakurat el-Baidar. The other two sites are at some distance from areas previously examined; one of them, T., is called Karam el-Tuti, "the Mulberry Orchard," a level field on a lower terrace north of the "palace" area; the other, S., Karam el-Sheikh, "the Sheikh's Vineyard," is the site north of the village, called the hippodrome by our predecessors.

About two hundred and fifty labourers have been engaged and work started on all the sites and also on two small groups of tombs, one group north of the city belonging to the Hellenistic and Roman periods, the other west of the "hippodrome," belonging to the Israelite and Roman periods. On all the sites within the Herodian circuit we have found traces of the Israelite, the Hellenistic and the Roman occupations: later remains have been found only on the most southerly sites, B. and D., and it is plain that after the IVth or Vth century A.D. the town of Samaria fell on evil days. The most interesting of the later remains are connected with the cult of St. John the Baptist: St. John was believed by many to have been imprisoned and beheaded in Samaria and the place is mentioned by many of the early pilgrims, but it never recovered its former political importance.

Of the Israelite period the greatest find made hitherto is a section of the city wall south of the basilica. The wall uncovered at present measures some twenty metres (64 feet) from east to west, and continues further west outside our area. Three courses are still in position above the foundations which were laid in a trench cut in the rock, each course being about fifty centimetres in height. The stones on the face of the wall are all bossed, there are drafted margins on three sides only of each stone with one or two exceptions, and,

again with one or two exceptions, there are two headers between each stretcher. The wall is a splendid example of the type of walling discovered by our predecessors, and there can be no doubt that it belongs to the same period as the "palaces" which they assigned to Omri and Ahab. There can be equally little doubt that it is part of the main wall round the acropolis and, as it is some three hundred and fifty yards east of the nearest city wall found by the previous expedition, it throws new light on the size of the ancient upper city. At the east end our wall turns at right angles south for about four metres and from this point another line ran west, parallel to the line of the main wall; of this second wall only the foundation-stones, laid also in a rock-cut trench, have survived, and it apparently formed part of a tower some fourteen metres square south of the main wall; this tower, unfortunately, has been almost completely destroyed and the little that remains of the other walls belongs probably to a later and much poorer construction. The plan of the wall and tower suggests that there may have been a gate here, but we must await the result of later excavations in the threshing-floor before we can feel certain about this. If it should prove to be the city gate, its proximity to the threshing-floor is interesting, because it was at the entrance of the gate of Samaria near the threshing-floor that the kings of Israel and Judah met according to 1 Kings xxii., 10. See Plate I., 1 and 2.

From the Israelite tombs west of the "hippodrome" large quantities of broken Israelite pottery have been collected, and from these we hope to restore several new types of vessels. The smaller finds in these tombs include a fine weight, some circular stone cosmetic jars and a few beads.

Fragments of Israelite pottery have been found in each of our fields, and also stones with the characteristic Israelite dressing, but the pieces of Israelite masonry found so far are small and disconnected, with the exception of the city-wall already described. One ostrakon with a fragmentary Aramaic inscription only has been found.

Another section of city-wall was found in D.; it was constructed against a rock-cutting like the Israelite wall, but the stones of which it was composed were quite different; the upper course was made of enormous boulders, two or three of which must weigh some two tons each, and this course gives the wall the appearance of a cyclopean structure. The lower courses, however, are made of much smaller stones, roughly dressed like those in the filling of the Israelite wall.

We are disposed, therefore, to regard this section as a patch built to repair a breach in the old wall some time after the fall of the Israelite monarchy. See Plate II., 3.

The Hellenistic period is represented up to date only by small finds, carved architectural fragments, coins, red and black glazed pottery, Rhodian jar-handles, lamps, and so forth. One inscription in T. may belong to the IIIrd century B.C., but we have not yet been able to identify any buildings of the period, and it looks as if the destruction of the city by Hyrcanus in the last decade of the IIInd century B.C. was almost as complete as Josephus declares. The Roman period, on the other hand, is represented by a great many walls, and in places we can distinguish at least five successive constructions between the close of the Hellenistic period and the end of, say, the IVth century A.D. Two inscriptions recording dedications to the Lady Virgin—*kuria kore*—have been found, several graffiti, much painted plaster and some mosaics besides the usual small objects of this period.

On the history of Christian Sebustiya much new light has been thrown. Above the old Israelite wall in B. we found a paved street which may be assigned probably to the VIth century and which led apparently along the south side of the ridge to the part called the Lands of the Monastery. The site of the monastery itself was some three hundred yards further west and, though it has not been previously recognised, it was indicated before our work by the ruins of a church in and around which the small Christian community of Sebustiya still bury their dead. This church has been almost completely excavated. It was of the so-called four-pillar type, with an external apse at the east end between two smaller internal niches. The building belongs to two periods at least : the first church probably had a roof of timber resting on the four granite cloumns which still remain ; subsequently this roof seems to have been rebuilt in stone masonry and the columns were encased in cut stone to form square piers. The walls still stand to a height of some fifteen feet, and there are numerous traces of painting, but the most interesting remains are in a crypt under the north-east corner where there are two pictures which we are disposed to identify with episodes in the history of St. John the Baptist. The larger of these represents a flower-clad hill with what may be the tomb of St. John in the centre and four ecclesiastics (?) beside it. On one of the jambs at the door of this crypt is a stone carved with pilgrim's crosses, like

the walls which lead down to the chapel of St. Helena in Jerusalem, and there are several graffiti on the walls left by Armenian pilgrims. Remains of the monastery, including an apsidal chamber with mosaics, have been excavated west of the church and there are probably more remains in the field east of our area. The whole complex forms an interesting commentary on the references to Sebustiya in the record of pilgrims like St. Willibald and Burchard of Mt. Zion. See Plate II., 4.

Like our predecessors we have failed completely to find any remains earlier than the time of Omri, and it would seem that Samaria was an entirely new foundation made by Omri as the Bible suggests.

June 5, 1931.



FIG. 1.—SAMARIA—SEBUSTIYA : NEWLY DISCOVERED PORTION OF THE OLD ISRAELITE CITY WALL.



FIG. 2.—CORNER WHERE THE OLD ISRAELITE CITY WALL FORMS A TOWER.



FIG. 3.—FRAGMENT OF ONE OF THE CITY WALLS, PROBABLY PERSIAN PERIOD.



FIG. 4.—A SMALL ROOM WITH APSE AND FRAGMENT OF MOSAIC PAVING IN THE BYZANTINE MONASTERY.



AIR-PHOTOGRAPH OF THE SITE OF SAMARIA.
SCALE APPROXIMATELY 640 FEET TO 1 INCH.

1

RECENT WORK ROUND THE FOUNTAIN COURT AT JERASH.

By J. W. CROWFOOT, C.B.E., M.A.

As readers of the last school report know, the work on the early Christian remains at Jerash on which we have been engaged for the last three years, has now been brought to a conclusion. During the past season we recovered the plan of another church of which an account has appeared in the Preliminary Report recently published, and we sank some trial-trenches in the courtyard of the Temple of Artemis in connection with the extensive campaign on the classical buildings which has now been undertaken by Yale University. Concurrently with these works some further clearances and soundings were made round the Fountain Court which have thrown more light on the pre-Christian history of this area. The new discoveries have raised new problems, as is always the case, and there are many questions on which we shall have to wait for further light until Dr. Fisher has cleared the whole region between the Fountain Court group and the precincts of the Temple of Artemis and, in particular, the strip immediately behind the Nymphæum. But there are some new facts which are already certain and it is with the bearing of these that I propose to deal in the following notes. We have to thank the Schweich Fund of the British Academy for a generous grant which enabled us to meet the cost of the work of this season.

1. THE GREAT STAIRS.

In 1929 we cleared the grand flight of stairs which led from the classical portico on the main street to the platform on which the Fountain Court stood in front, that is west of, the old church which we regard as the cathedral of Christian Gerasa¹. The walls on either side of the stairs were built out of old material in exactly the same style as the walls of the cathedral, and it seemed reasonable to conjecture that the steps themselves had been re-laid at the same time. This conjecture has now been confirmed by a discovery made on the terrace at the top of the stairs. In the middle of this terrace there was a shrine to the Virgin and Archangels against

¹ *Q.S.*, 1930, p. 32 *sq.*

the east wall of the cathedral, and the paving stones round this shrine were much rougher than those on either side, having perhaps been covered once with marble or mosaics. We lifted two or three of these rough stones. The first proved to be the top half of a Corinthian capital made like those in the Artemis Temple and elsewhere, at Kanawat for example², in two halves, and underneath it, close to the cathedral, was the tread of a step. We cleared enough to get a glimpse of the treads of five steps altogether built on the same line as the Christian flight, but of course on a much gentler gradient. The present flight, therefore, is definitely Christian, but there was a classical flight below it: some of the lower steps in the present flight have probably never been moved, but the greater number of them were re-laid when the cathedral was built. *See plate I.*

Why did the Christians put themselves to the trouble which this reconstruction of an old flight must have given? By making the gradient steeper they secured a few more feet at the top, but this hardly seems a sufficient reason: it seems more likely that it was because the old flight had been ruined by an earthquake which may have also affected the buildings above, and may consequently have rendered it easier for them to secure possession of what was one of the finest sites in the town. Just before the middle of the 4th century there were severe earthquakes in the East, in 340, 342 and 344, but it is not certain that these affected this area: in 362 and 365, however, there were other earthquakes which certainly affected Palestine, which lies in the same earthquake zone as Jerash,³ and any one of these five dates would fit the circumstances of the case, whereas the next recorded earthquake, which occurred in 425, is too late.

The two new facts, then, of which we have to take account in our reconstruction of the history of this site are, (1) the Christian origin of the present flights of steps, and (2) the previous existence of an earlier flight on exactly the same alignment.

The second of these facts may throw new light on the planning of the portico on the street. The eight Corinthian columns in this portico were erected, or at least planned, before the year 190 A.D., when the Nymphaeum was built. This is certain, because a corbel

² Butler, *American Expedition, Architecture and other Arts*, 1903, p. 352.

³ For a list of the "Earthquakes in the Holy Land" see Bailey Willis in the *Bulletin of the Seismological Society of America*, vol. 18, No. 2.

was cut on one of the upper drums of the southernmost column in front of the Nymphæum to carry the architrave which rested on the rather lower columns in the portico with which we are concerned. The columns in our portico, however, are set out irregularly: the four on the south of the stairway are spaced much more widely than those on the north, which were crowded together, evidently because the Nymphæum extended further south than was originally planned. This clumsy expedient is more intelligible if the portico be regarded as a façade added to an old and important complex of buildings, to which the early flight gave access. The façade is probably earlier than the Nymphæum but later than the buildings in front of the Artemis Propylæa which are about 150 A.D. In the Propylæa, as in the Temple and in the forecourt east of the street, the bottom drum of the columns, which contains the apophyge of the shaft, is cut out of the same block as the base of the column, after a common Syrian fashion; in our portico, in that of the Nymphæum, in the colonnades of the cathedral and S. Theodore's, there was a reversion to the orthodox classical procedure. But all these buildings, both those of the middle of the 2nd century and those of the latter half, are a mere screen or frontage which the Antonines built to mask an earlier group of buildings—this is the theory to which our later discoveries point, among them this discovery of the old flight of stairs.

2. IN THE CATHEDRAL (*see* Plate II.).

The second discovery we have to describe was made under the nave of the cathedral. Here we found three sides of the moulded base of what can only have been a small temple. The west wall of this temple (*see* plate II., 2) lay exactly under a colonnade which was built, probably in the 8th century, after the cathedral had been shattered by an earthquake and reduced in size, a new west wall being built across the nave opposite to the fifth pair of columns. The west wall of the temple was almost in line with the fourth pair of columns, and we traced the north and south walls of this building at two or three points further east about m.0.25 inside the colonnades of the cathedral: the east wall of the temple we could hardly hope to find without pulling down a great deal of the apse. The temple, therefore, was a small one some 25 metres long by 10 wide, and it may be worth noting that the twenty-four columns used in the cathedral might have been taken from a temple of these dimensions with nine columns on the

long sides, four at the ends and a prostyle portico in antis at one end: this might explain also why we found only one pilaster cap out of a hypothetical two at the east end and no trace of responds at the west end which would have involved the carving of two more pilaster caps. There is, however, one objection to this theory, the base moulding was covered with stucco and carved out of a coarse grey limestone like many drums and caps which we found built into the walls of the stairway; both caps and drums, one of which has a fragment of stucco facetting still on it, appear to belong to the 1st century, and it is to this that we should assign the base, whereas both in style and in the character of the stone the columns in the cathedral colonnades seem to date from the second half of the 2nd century. If therefore the columns were used on the base we must assume that the temple was rebuilt in the 2nd century, which indeed is likely enough.

The one new fact, however, which seems to be certain is the existence of an old temple under the cathedral on the same axis as the early flight of stairs. It follows that it was to give access to this temple that the stairs were built, and that the temple was probably second only in importance to the temple of Artemis.

3. GLASS COURT (see Plate III.).

Glass Court was the name we gave to a small court at the north-east corner of the Fountain court, where we found over a hundred and twenty pounds' weight of glass "melt" of different colours, which was obviously part of the stock in trade of a glass factory at work here before the earthquake which finally overwhelmed this part of Jerash: the collection of old lamps and bowls which we found under the steps close by in our first season belonged no doubt to the same factory.¹ The glass was found on the level of a much broken mosaic floor, which was on the same level as the Fountain court: the only part of these mosaics which was well preserved was a piece of the border on the east side which had a scroll pattern of a type intermediate between the pattern in the Prophets', dated 464-5, and that in Procopius' church, dated 526²: this floor may therefore be dated a little before or a little after the year 500, and it may have been in existence for 200 years before the factory was started. See Plate III.

¹ *Q.S.*, 1929, p. 34.

² See *Churches at Jerash*, 1931, p. 45, diagram 2.

The court measured about 8 metres from east to west by 13 metres, and at the south end a wide entrance opened from it on the east walk of the Fountain court : on the floor of the court we found two small columns of rose granite which probably once flanked this entrance. Its position and rather fine appointments suggest that it may at one time have served as an episcopal reception room, like the place of " *prosrhesis* " mentioned by Choricius in his account of the churches at Gaza.³

The east and west walls of the court were built in the same style, of large blocks, many of them more than a metre long, in courses about 0.60 m. high, and there was no trace in them of re-used stones—a fact which distinguishes these walls at once from any Christian building at Jerash. In the middle of the west walls there was originally a wide arch which had subsequently been walled up (Plate IV., 1), and further north on the same side there was what looked like the top of a doorway some 50 centimetres above the level of the mosaics. On the opposite side there were two low arches of the same type in the middle portion of the wall, both of them walled up. These low blocked openings suggested that there was a lower level below, and it was not surprising to find a second mosaic floor about 1.25 m. below the later floor. The debris between the two floors contained a quantity of plain and ribbed pottery, some lamps of a much earlier type than those we found in the upper church debris, and a few coins : most of the latter cannot be identified, but Mr. Mattingly has recognised one coin of Licinius I, minted at Antioch, one of Constantine I, minted at Nicomedia, one of Constantius II or Constans I, and one of Valentinian I. The indications given by these coins correspond exactly with the deductions which might be drawn independently from the style of the mosaics : when the mosaics on the upper level were laid, say, towards the end of the 5th century, the space between the two floors was filled in with soil and imported rubbish, most of which dated from the 4th or 5th centuries, none of it later.

The mosaics on the lower level were the earliest we have uncovered at Jerash. The floor was completely paved with mosaics except at the south end, where a short flight of steps led up to the east alley of the Fountain court, two grooves in the south wall, which can be seen in our photograph, marking the width of the steps. It will be noticed that the steps are not in the middle of the south wall, and

³ *Q.S.*, 1930, pp. 179, 188.

it is plain that originally Glass court had no connection with the Fountain court, as now laid out. Originally there were shallow returns projecting 57 and 61 centimetres respectively at the south-east and south-west corners of this room, which may have framed a much wider flight of steps or a "window," giving on the court in front of the old temple which occupied the place of the later Fountain court: when the Fountain court was set out as an atrium to the cathedral, and it was decided to connect our room with it, the return at the south-west corner was prolonged to bring the new opening in line with the east alley of the atrium—this is plain from our photograph; what our photograph does not show, however, is that the new piece of masonry then introduced was in the same style as that of the walls of the cathedral, but the identical character of the two is quite unmistakeable on the spot. It seems certain therefore that the cathedral, the Fountain court-atrium, and the prolonged return, hang together (Plate IV., 2).

It is equally certain, as our photograph again shows, that the mosaics were laid to fit the new entrance. The floor contained eight principal panels, six only of which were cleared by us, the other two being under the area on the east side which we did not disturb, as the upper mosaic was well preserved at this point. The most striking of the panels is the circular pattern with a cross in the middle immediately in front of the steps, and if we could date this pattern or any of the others precisely, we should be able to date the cathedral precisely. Unfortunately, we can only date the mosaics approximately, but the approximation is sufficiently close to guide us within a few decades of the actual date.

Several differences between these mosaics and those in the churches of the 5th and 6th centuries jump to the eye at once. In the first place, the tesserae are larger and rather more closely set: the numbers of tesserae seen through a square decimetre gauge varied on this floor between 40 and 48 in six counts, in the Prophets' church (464-5) the average was 79, in Procopius,' well over 90, and in the cathedral chapel it was over 100. Secondly, fewer shades of colour are used, and those used are laid in larger masses. Thirdly, though some of the patterns continued in use for the next two or three centuries, some of them did not, and as a whole they are much closer to the stock patterns which recur again and again on late classical floors than to the other Christian mosaics in Jerash. Floors in the so-called villa of Diomedes in the last Pompeian style,⁴

⁴ Roux et Barré, IV., Plate v.

or in the house of the Laberii at Uthina in North Africa,⁵ still later floors in Lyons published by Fabia,⁶ the silver dish at Athens published by Matthies,⁷ this is the circle from which our patterns are descended, and at the first glance many would perhaps be inclined to assign our floor to the 3rd century. The pooriness and inaccuracy of the workmanship, however, point, in our opinion, to some date in the latter half of the 4th century.

As will be seen on our photograph there is a stone slab in the middle of the room with two slots in it: this slab, which measures m. 1.57 by m. 0.90, was in position apparently before the mosaics were laid and carries us back to an earlier period in the history of the room: we cannot say what purpose the slots served unless to carry posts which supported an awning. To the same period also belonged a cistern of which we obtained a glimpse in a shaft we sank against the south wall in the unpaved part once occupied by the steps: this cistern was cut out of the rock and the one masonry wall of it which we uncovered was admirably built. We cannot tell how the cistern was entered, nor whether it was used at all after the mosaic floor of the 4th century was laid. And to the early period also we may attribute at least the bottom of the three coats of plaster which we found on the walls of the massive buildings east and west: this bottom coat was moulded and had been painted apparently in an "incrustation" style to imitate a marble revetment.

Upon this early period we hope that more light will be thrown when the extensive dumps which now lie behind the Nymphæum have been cleared away and it becomes possible to examine the row of early buildings. At present it looks as if originally there was a natural depression between the ridge on which the Artemis temple was built and the Fountain court ridge, and that this depression was filled in the 1st (?) century with a row of large and partly subterranean buildings which, if the temple to the south were dedicated to the Infant Dionysus, may have been used as a sort of Telesterion for initiation rites (see Section 5 below).

The second period, that of the mosaics, lasted for a considerable time, long enough for the mosaics to require patching, and it was perhaps not until the walls east and west were threatening to fall that the floor level was raised. There were earthquakes in Palestine in the years 425, 447, 460, 462, and 500, and it may have been after

⁵ *Pist Mon. et Mém.* III., 1896 (Gauckler), p. 177 sq.

⁶ *Recherches sur les Mosaïques Romaines de Lyon.* Lyon, 1924.

⁷ *Ath. Mittheil.* 1914, p. 106 sq.

one of these that the doorways east and west were blocked up to prevent the upper part from collapsing, and that then it was felt to be more convenient to raise the level altogether. The wall at the north end is of indifferent masonry and, though it is on an earlier line, may have been constructed at the same time. A second wall across the north end of the room, m. 2.35 from the end had been added and the area between it and the end covered with a coat of cement about 3 centimetres thick, presumably to hold water.

We may therefore venture to distinguish five metamorphoses in Glass court, 1, the early period of the 1st or 2nd century; 2, the period of the lower mosaics 350 to 400; 3, the gradual decay of the last about a hundred years later; 4, the period of the upper level mosaics from about 500; and 5, the period of the glass factory perhaps in the 8th century.

4. SARAPION'S PASSAGE (*See Plate V.*).

Exactly opposite the Fountain there is a second opening on the north side of the Court. Some 7 metres west of Glass court a flight of thirteen steps led up to a door beyond which there was a paved passage leading to a street which ran east and west along the south boundary of the Artemis court, starting from the main colonnaded street just north of the Nymphæum. The water which fed the fountain was conducted along a channel which ran along the west side of this passage: at the north end of the passage the channel turned east, it then crossed the street just mentioned and apparently continued east along the retaining wall of the Artemis court.

The steps and passage we called after a certain Sarapion, whose name occurs on the lintel of the door at the head of the steps,¹ and in this passage we can distinguish a succession of building periods corresponding roughly to those which we have recognised in Glass court.

The earliest period is represented by an archway on the east side of the passage (Plate VI, 1) which was completely hidden by a late platform when we first cleared this area (Plate VI, 2). As will be seen from the photograph only the spring of the arch just above the floor of the passage is visible: the upper part collapsed long ago, and the lower walls are still buried beneath the passage. This arch is in line with the rather smaller arch in the west wall of

¹ Jones in *J.R.S.*, 1930, p. 43.

Glass court: and obviously was connected with it, forming part of the entrance to the complex of buildings on the low level at a time when there appears to have been no connection at all between the old temple and the Artemis precinct. The period of the arch corresponds therefore with the classical period in Glass court.

The passage as we see it now belongs in the main to the second or third Glass court periods. It is aligned on the Fountain and, as we have already said, the water which supplied the Fountain was carried along it. The construction of this passage involved the remodelling of the previous building. So far as the evidence goes at present, it would seem that the early archway was in plan like a squat T, and that the architects of the passage blocked the arch and converted the T-shaped building into a rectangle, opening a new doorway into it from the Fountain court between Glass court and the passage, and building against their new construction a fine flight of steps to lead out towards the Artemis precinct. At the head of this flight they erected a doorway with moulded jambs and lintel. The lintel was composed of three blocks keyed together, and on two of them there is the inscription of Sarapion with the date 67-8 A.D. : the letters on the third block have unfortunately been obliterated, but enough remains to show that the inscription recorded the erection of an " andron " and door. Of the jambs there are only two stones in position on each side, but four other stones belonging to them have recently been found by Dr. Fisher re-used to form a doorway in the north colonnade of the Artemis temple. The four latter stones are set so close together that they could not have been spanned by the lintel and were obviously, therefore, removed from our doorway, the removal dating perhaps from the 12th century when the temple seems to have been turned into a fort. In our door, however, the stones are not in their original position; this is proved by the way in which, contrary to classical practice, the outer mouldings which have a Lesbian cyma project beyond the sill of the door which is flush with the inner fascia of the jamb; it seems quite possible that they were lifted into their present place from the old archway to the east which will be then the door mentioned on the inscription, and dated therefore definitely to the 1st century. About this we cannot be certain at present. It is interesting to note further that jambs with bevelled corners similar in section to these are to be seen also near the doors in the lower terrace leading up to the South temple, to which, as we know from inscriptions, contributions were made in the 1st century.

The doorway which we have just described was flanked originally by two smaller doors with mouldings on the outer side which resemble a base moulding in the Nymphæum. These side doors may have led to a gallery from which people could witness the services in the Fountain court: both were blocked up before the passage was deserted.

Sarapion's door led north into a room paved with large rectangular slabs of hard red limestone, the two side doors to raised steps or benches (*mastabas*), that on the west covering the water channel. This room which formed the first section of the passage was about 7.50 metres long, and at the north end there were two more steps which led originally under a semi-circular arch with mouldings rather like those above the arch at the head of the great flight of step which led to the cathedral.

Beyond this arch the second section of the passage, which was about the same length as the first, was paved, like the east walk of the Fountain court, with a carved panel of octagons and squares, and led to a third doorway with moulded jambs and lintel of the usual 2nd and 3rd century type. This third door gave on the cross street which led up from the Nymphæum.

To what date are we to assign this, the first Christian reconstruction of the area? The masonry of the walls on either side of the stairs is not like that of the Cathedral, but it is equally unlike that of S. Theodore's: the steps are much more regular than those near them leading up to S. Theodore's and certainly antedate this flight, because when it was built the level of the north walk of the Fountain court was raised to the top of the bottom step in Sarapion's flight. It is possible that this passage may have been laid out when the baths west of it were built¹ in 454-5 A.D., but it may be some decades earlier: the available evidence does not permit us to fix the date at present.

Still later periods are represented by (1) the reconstruction of the side walls of the north section of the passage, (2) the blocking of the doors flanking Sarapion's door to which we have already referred, and (3) the erection of a platform approached by five steps on the east side of the south section, but it is not certain that these were all carried out at the same time. The chronological indications are as follows: (1) The side walls of the north section were rebuilt after the collapse of the central arch and several

¹ Jones, *J.R.S.*, 1928, p. 168 (No. 34).

stones from the arch were built into them. (2) Deep in the masonry of the platform a coin of Heraclius was found, which shows that the platform cannot have been built before the latter half of the 7th century. (3) Near the north door a few Omayyad coins were found on the street level which suggest that the passage was in use until the time of the great earthquake in the 8th century, probably, which shattered all the buildings in this area.

The history of Sarapion's passage corresponds therefore, as we should expect, with the history of Glass court. It begins with the same classical building complex, which goes back, we have suggested, to the 1st century. This was drastically reconstructed by the Christians perhaps in the first half of the 5th century: in their reconstruction the Christians used all old material with sublime disregard for classical traditions but their work served the purpose of the architect and was effective in a new way. Later still, in the 7th or 8th centuries, the early Christian work was largely destroyed presumably by an earthquake, and what remained of it was botched together to serve the immediate needs of a much poorer generation.

5.—THE PRE-CHRISTIAN COMPLEX.

In the first paper about the Fountain court, which was published in this Journal², scant hope was held out that it would ever be possible to recover much of the pre-Christian history of this area. The preceding sections show that this pessimistic forecast was premature, and there can be little doubt that what has been already found will be largely supplemented in the future. We know now that the Fountain Court complex replaced and in part overlay an earlier sacred precinct which was only a little less important than the temple of Artemis beside which it lay.

What evidence is there to show to whom this precinct was sacred?

It must be admitted that the evidence is not at present conclusive, but such as it is it tends to confirm a suggestion made to the writer three years ago by Professor Bacon that the martyrdom of Epiphanius, our cathedral, where water was turned into wine on the anniversary of the marriage feast at Cana, had taken the place of a shrine of the Arabian God, a Dusares in whose honour the Dionysiac phenomenon was reported to take place.

Three inscriptions in honour of the Arabian God have been found at Jerash. The first of these to be discovered was seen by Père Germer-Durand in a Circassian house and was said to have been

² *Q.S.*, 1929, p. 35.

found in a grave containing three sarcophagi³: the alleged find-spot therefore throws no light upon its original position. The other two however, were both found in the area with which we are concerned, the first built into wall against the north end of the Nymphæum⁴, the second built into the shrine to the Virgin Mary and the Archangels at the head of the great flight of stairs⁵.

The inference which the provenance of these inscriptions suggest is strengthened by the situation of the Nymphæum in the middle of the façade which joined our precinct with that of Artemis, because the Nymphæum besides being a public fountain was also a shrine of the Nymphs who suckled Dionysus with whom the Arabian God was very commonly equated.

A third argument may be based on the parallel between the relation of our temple to the temple of Artemis and the relation of the so-called "Temple of Bacchus" to the temple of the Sun at Baalbek. In both places we have a great temple with a spacious precinct and a smaller one with a smaller precinct beside it: in each place the two temples were approached by separate entrances; at Baalbek there was no connection between the two precincts⁶ and at Jerash the only connection we have found was made in the Christian period (see section 4). In an ingenious article M. Seyrig has recently argued that the smaller temple was consecrated to the Infant Dionysus and set apart for mysteries and initiation rites, whereas the larger temple was reserved for more public worship⁷. Is it too hazardous to suggest that a similar distinction may have been observed at Jerash and that the massive semi-subterranean buildings with which we have dealt in the last two sections are to be identified as the Telesterion or Hall of Mysteries?

Further investigations may provide definite evidence to confirm or refute these suggestions, and until the whole area has been examined it will be wise to maintain an open mind. Should subsequent work however, confirm this hypothesis, it will follow, as Professor Bacon thought, that the miracle mentioned by Epiphanius was no new thing, that here as in so many other places the Church adopted, or christianised, a local custom or rite to which there are many analogies in other parts of the world.

³ *Rev. Bib.*, 1895, p. 385, and Lucas in *Mitt. u. Nachr. d. Pal. Ver.*, 1901, No. 7.

⁴ Jones, *J.R.S.*, 1928, p. 158.

⁵ *Idem*, 1930, p. 50.

⁶ *Baalbek* (Berlin, 1923), II., Text, p. 36.

⁷ *Syria*, 1928, p. 314, *sq.*



JERASH. GENERAL VIEW OF THE FOUNTAIN COURT FROM SOUTH. NOTE S. THEODORE'S ON LEFT. THE FOUNTAIN IN CENTRE WITH SARAPION'S PASSAGE DUE NORTH OF IT. THE GLASS COURT FURTHER TO THE RIGHT AND THE CATHEDRAL ON THE EXTREME RIGHT.



FIG. 1.—VIEW OF SOUTH WALL OF GREAT STAIRS FROM THE SOUTH, SHOWING HOW IT WAS CONSTRUCTED OF OLD DRUMS, ONE OF WHICH HAS EARLY STUCCO STILL ADHERING TO IT.



FIG. 2.—MOULDED BASE OF OLD TEMPLE UNDER THE CATHEDRAL. THE COLUMN ABOVE IT BELONGS TO THE LATEST RESTORATION OF THE CHURCH.



FIG. 3.—EARLY CAPITAL OF 1ST (?) CENTURY A.D. FOUND IN THE WALLS OF THE GREAT STAIRS



FIG. 1.—GLASS COURT FROM SOUTH, BEFORE THE LOWER LEVEL HAD BEEN FOUND.

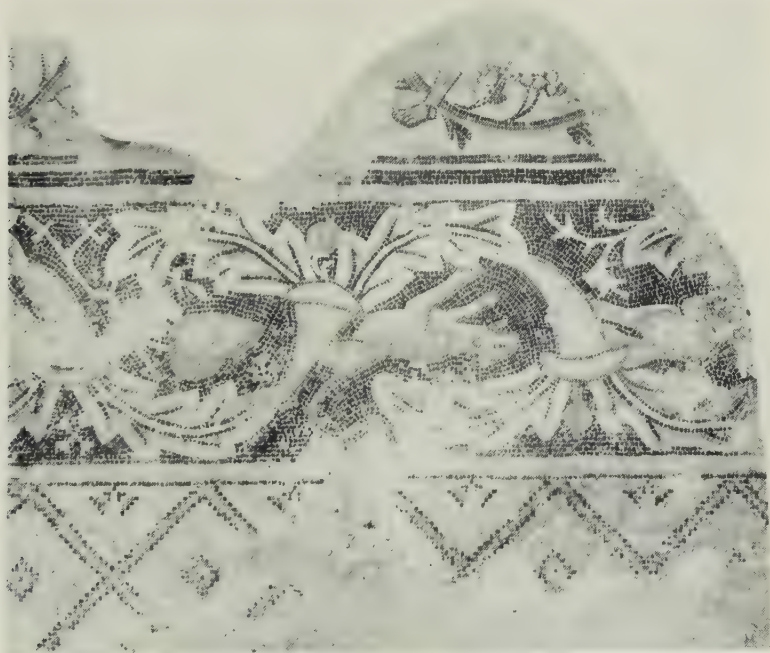


FIG. 2.—GLASS COURT. CHRISTIAN MOSAIC ON UPPER LEVEL.

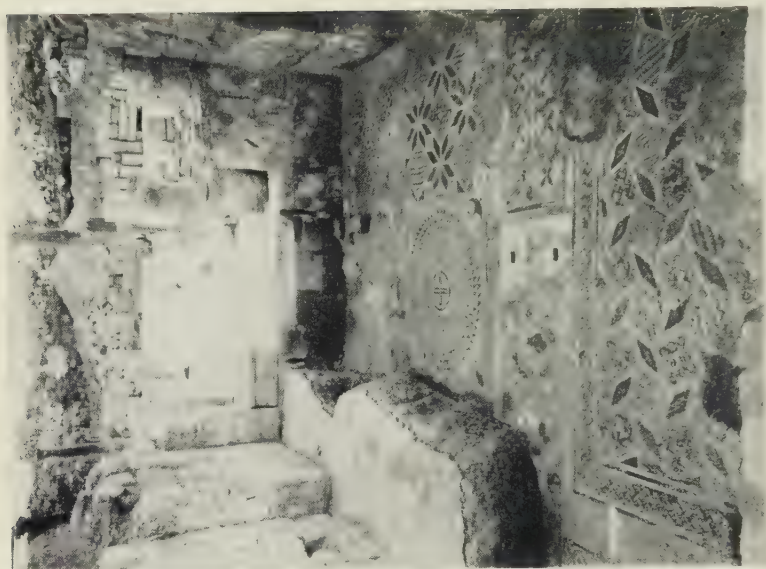


FIG. 2.—GLASS COURT FROM NORTH, AFTER THE LOWER LEVEL HAD BEEN CLEARED. NOTE THE RELATION WITH THE EAST ALLEY OF THE FOUNTAIN COURT.



FIG. 1.—GLASS COURT. DETAIL OF N.W. CORNER, SHOWING ARCH ON WEST SIDE AND THE DOOR IN N.W.



SARAPION'S PASSAGE FROM THE NORTH, WHEN FIRST CLEARED.



FIG. 1.—VIEW OF OLD ARCH ON EAST WALL OF PASSAGE AFTER THE REMOVAL OF THE LATE PLATFORM.



FIG. 2.—VIEW OF S.E. CORNER OF SARAPION'S PASSAGE, AFTER REMOVAL OF LATE PLATFORM AND BLOCKING.

DOLMEN NECROPOLIS NEAR KERAZEH, GALILEE.

EXCAVATIONS OF THE BRITISH SCHOOL OF
ARCHÆOLOGY IN JERUSALEM, 1930.BY F. TURVILLE PETRE, B.A.¹

THE basalt region immediately East of Kerazeh, and of the Wadi Webdeh, is the site of an extensive Dolmen Necropolis first recorded and studied by Karge in the years 1910-11 (*Rephaim*, pp. 306, sqq.). The necropolis begins some 2 kilometres North of Tell Hum and the N.W. shore of the Lake of Galilee, and extends sporadically for $4\frac{1}{2}$ kilometres to the north, and some 3 kilometres to the East. The dolmens are most numerous on the crest and southern slopes of two ridges, particularly thickly strewn with basalt blocks, which lie some 3 to 4 kilometres due north of Tell Hum, and immediately East and S.E. of the ruined synagogue of Kerazeh. The dolmens, 24 in number, which were examined and excavated this Autumn, were all situated on these two ridges.

Scattered at random about the hills, the dolmens are built preferably on natural eminences, affording a view of the Lake and the plain called El-Bteha to its North. The material used is invariably local basalt blocks; the most suitable slabs seem to have been carefully selected, but not artificially trimmed; after completion of the main structure interstices in its walls were filled with smaller stones.

Dolmen 1.—Three orthostatic blocks form the walls of the chamber. On these rest two slabs laid horizontally. The chamber measures internally 1·60 by ·55 metres, and is roofed by a saddle-shaped capstone (2·20 by 1·30 metres, 45 cm. thick). The entrance faces north-east. A large basalt block lying in front of the entrance probably originally closed it. Inside the chamber, some 10 cm. of reddish earth rested on the black clay of the district; into this clay the orthostatic blocks were embedded to a depth of about 10 cm. No potsherds or other remains were found. The whole

¹ The British School has to thank Mr. Robert Garrett, of Baltimore, for a generous donation which enabled the excavations described in this report to be undertaken.

structure was surrounded by a tumulus of stones which covered it to the level of the bottom of the capstone. See Fig. 1, and Plate I, figs. 1 and 2, and plate II, fig. 2.

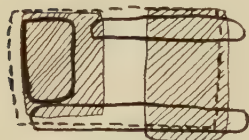


FIG. 1.—DOLMEN NO. 1.



SECTION N. WALL:

Dolmen 2 is a small “allée couverte”; the chamber proper is formed of two courses of basalt blocks, of which the lower course is orthostatic, and is covered by a saddle-shaped capstone, 2·3 by 1·60 metres and 70 cm. thick. It is approached by a lower passage which narrows gradually towards the entrance. This passage is walled by three orthostatic blocks, and roofed by three transverse slabs. The total internal length of the chamber and passage is 3·20 metres, the breadth of the chamber 90 cm., and of the passage at entrance 25 cm. The entrance faces due east. The floor was roughly paved with slabs. The whole structure was covered by a tumulus of stones which reached to rather above the level of the base of the capstone. Among some 30 cm. of earth which overlay the floor slabs were 2 worked flints and fragments of pottery, and at the entrance a piece of bent copper wire, possibly an anklet. Below the paving slabs which rested on clay were no remains. See Fig. 2, and Plate I, fig. 3.

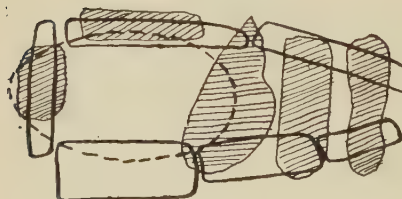
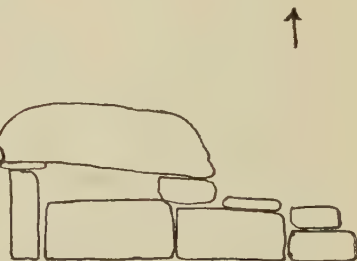


FIG. 2.—DOLMEN NO. 2.



SECTION S. WALL.

Dolmen 3 is built on the same plan as No. 13. It contained five worked flints and a few potsherds.

Dolmen 4.—Type of No. 13, contained four worked flints, a piece of ribbed glass and potsherds.

Dolmen 5.—When discovered, this dolmen was entirely covered by a tumulus of stones, so that not even the capstone was visible; the tumulus was removed entirely in the course of excavations.

Five orthostatic blocks form the foundation of the chamber and entrance passage. Two slabs resting on these roof the entrance passage and the front part of the chamber. The main part of the chamber is roofed by a capstone, 1·95 by 1·25 metres and 120 cm. thick. A much smaller capstone of which the only function is to enhance the symmetry of the structure rests on the slabs which roof the entrance. The interior of the chamber and passage is 3·20 metres long by ·90 metres broad, and is paved throughout with basalt slabs. The entrance faces slightly south of east; see Fig. 3,

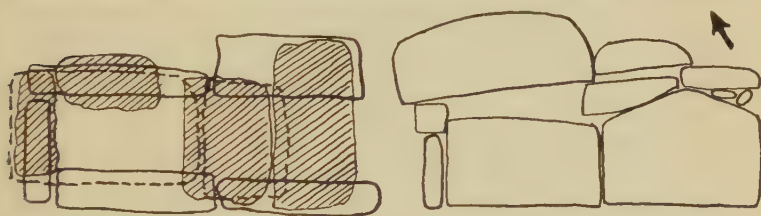


FIG. 3:—DOLMEN NO. 5.

SECTION S. WALL.

and Plate II, figs. 1 and 3, and Plate III, fig. 1. Above the paving stones which rested on black clay were some 25 cm. of reddish earth; among this the following objects were found: two silver bracelets diameter 6 cm., (Plate IV, No. 3), one silver ring (diameter 2 cm.), two glass beads of Roman or later date, four worked flints, and a few potsherds. Among the stones of the tumulus were numerous worked flints and potsherds, one carnelian bead, two silver buttons (Roman), one bronze ring (diameter 8 cm.), one faience ring (Roman or later), fragment of faience bracelet, iron nails and light strikers, iron arrow head, three bronze coins of Trajan struck at Sepphoris-Diocæsarea, one bronze coin of Trajan struck at Tiberias, one bronze coin of Hadrian struck at Cæsarea (Samaria), one illegible bronze coin, one silver denarius of Domitian, possibly a contemporary forgery, one bronze fibula, probably Hellenistic (cf. Macalister, *Gezer*, plate cxxxiv., Fig. 14).

Dolmen 6 is unusual, in that its entrance faces north-west. It is an "allée couverte" 3·80 metres long by 1 metre broad. The north-

east long side is walled by four orthostatic blocks, the south-west long side by three. On the orthostats smaller blocks are laid horizontally; the whole is roofed by four flat slabs. The interior was paved throughout with basalt slabs. Just inside the south-west wall, towards the centre, was a small erect block reaching nearly to the roof, this seemed to mark the division between the entrance passage and the chamber proper. The dolmen contained six worked flints, two pottery beads, some potsherds, and two fragments of bone. See Fig. 4.

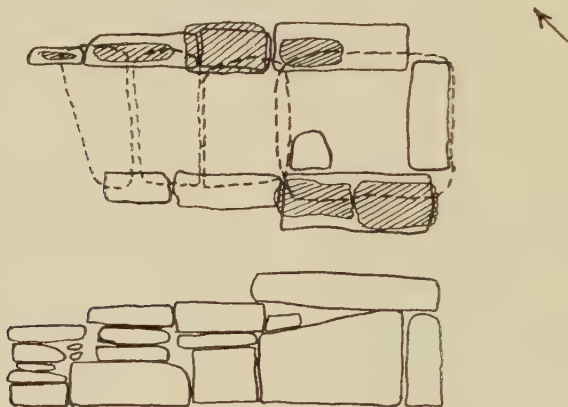


FIG. 4.—DOLMEN NO. 6, AND SECTION N.E. WALL.

Dolmen 7 is of the type of No. 13. It contained three worked flints and a few potsherds, including a fragment of an Arab pipe.

Dolmen 8 is an "allée couverte," with entrance facing north-east. When discovered, this dolmen, like No. 5, was entirely concealed beneath a tumulus of stones. It consists of a lower course of five orthostatic blocks, and is roofed by two flat capstones. Towards the entrance, between the orthostatic blocks and the capstones, is an intermediate transverse slab on which both capstones partly rest.



FIG. 5.—DOLMEN NO. 8.

SECTION S.E. WALL.

Within the dolmen were one worked flint, and a very few potsherds; among the stones of the tumulus were five worked flints and numerous potsherds. See Fig. 5.

Dolmen 9.—Type of No. 13, was filled nearly to the roof with earth. The entrance was, as usual, open, and only remnants of the tumulus remained. Near the surface at the entrance, and partly outside it, were a few fragments of human bone and teeth. Inside the dolmen were six worked flints and a few potsherds. There was no stratification.

Dolmen 10.—Type of No. 13 contained six worked flints, two iron nails, and some potsherds.

Dolmen 11.—Type of No. 13, yielded no contents.

Dolmen 12.—Type of No. 13. The dolmen itself contained nothing. Among the stones of the tumulus three worked flints and some potsherds were found.

Dolmen 13.—This is typical of the form of dolmen most frequent on this necropolis. (Fig. 6.) Three orthostatic blocks form the walls of the chamber, and these are prolonged by two more orthostatic blocks, forming a rudimentary entrance. This entrance, which faces east is roofed by a transverse slab, while the chamber itself is covered

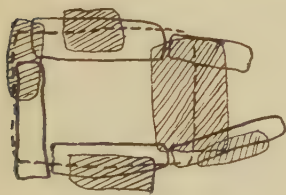


FIG. 6.—DOLMEN NO. 13.



SECTION N. WALL.

by a saddle-shaped capstone which rests partly on the slab roofing the entrance, partly on an intermediate course of horizontal slabs laid on the orthostatic blocks enclosing the chamber. This dolmen measures internally 2 by .90 metres. The capstone is 2 by 1.80 metres and 80 cm. thick. Within the dolmen among some 25 cm. of earth were found one flint blade with saw edge (Plate Va, No. 1), part of a bronze ornament (Plate IV, No. 2), one small carnelian bead, two small fragments of pottery.

Dolmen 14 is the same type as No. 6, but the roofing slabs except the two nearest the entrance are missing. It contained two worked flints and a few potsherds. Entrance faces east.

Dolmen 15 is the smallest and most simply constructed of the dolmens examined. It consists of three orthostats supporting a flat capstone and is without a covering tumulus. Internal dimensions are 1·10 by ·60 metres. The capstone is 1·20 by 1·20 metres and 20 cm. thick (Fig. 7). No remains were found. There was no tumulus.



FIG. 7.—DOLMEN No. 15. SECTION N. SIDE.

Dolmen 16.—Type of No. 13 contained three worked flints and a few potsherds.

Dolmen 17.—(Plate II, fig. 4). Type of No. 13 contained 35 cm. of earth in which were found, one iron bracelet, diameter 7 cm., (Plate IV, No. 1), twelve worked flints numerous potsherds, fragments of calcinated bone.

Dolmen 18 contained two worked flints and a few potsherds.

Dolmen 19 is constructed approximately on the plan of No. 13; the slab over the entrance, however, projects much further beyond the capstone than in the case of the latter, and forms a true entrance passage. The capstone is flat, nearly circular, and only 20 cm. thick which gives the structure an entirely different exterior appearance. Internal measurements of the chamber and passage are 2·40 by ·80 metres. The capstone measures 1·20 metres in diameter. Among some 70 cm. of earth inside the dolmen were found one carnelian bead, three worked flints, some potsherds, and a few fragments of split bone; these remains were all found among the lower 35 cm. of earth. The dolmen was covered with a tumulus to the level of the capstone. See Fig. 8.

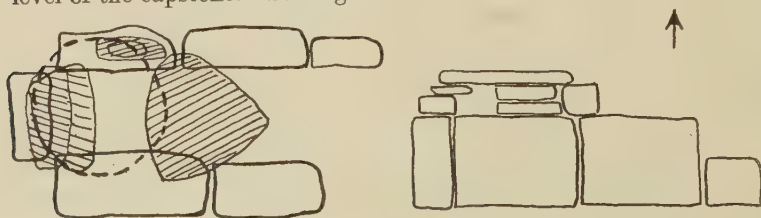


FIG. 8.—DOLMEN No. 19.

SECTION N. WALL.

Dolmen 20.—Differs from all others examined in that the blocks which form the chamber walls are not orthostatic, but laid horizontally one on the other in three main courses in such a way that each course overhangs that immediately below it to the extent of about 25 cm. producing a primitive corbelling. The ground plan of the chamber is roughly apsidal. It is 2·40 metres long, 90 cm. broad at the centre, and 60 cm. at the back. A circular slab 1·30 metres in diameter and 25 cm. thick roofs the main part of the chamber. A second rectangular slab 1·50 by 1·20 metres roofs the entrance passage which faces north-east. A few potsherds were found. See Fig. 9.

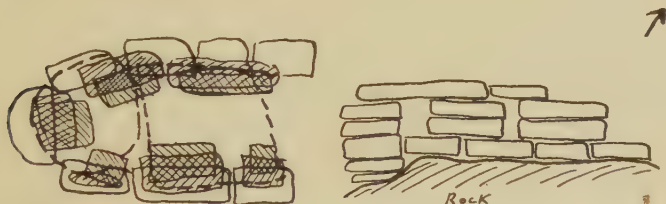


FIG. 9.—DOLMEN No. 20.

SECTION N. WALL.

Dolmen 21.—Type of No. 13, contained a few potsherds.

Dolmen 22 is a small “allée couverte.” The chamber and entrance passage which measures internally 2·40 by 1·20 metres are walled by six orthostatic blocks. The passage is roofed towards the entrance by a transverse rectangular slab on which rests a nearly semi-circular slab (diameter 1·30 metres, 25 cm. thick). The chamber proper is roofed by another roughly circular slab which slightly overlaps the slab above the entrance. The entrance faces due east. A few sherds of a single pot and some fragments of calcinated bone were found. See Fig. 10.

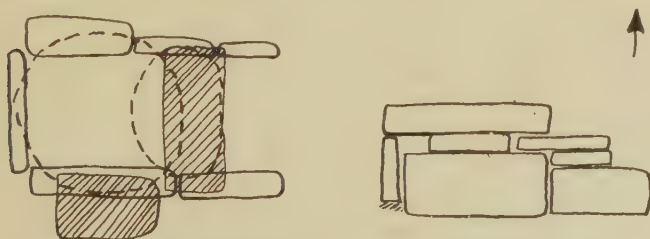


FIG. 10.—DOLMEN No. 22.

SECTION S. WALL.

Dolmen 23.—Type of No. 22, had no contents.

Dolmen 24.—Type of No. 22, had no contents.

With the exception of the very small specimen No. 15, all the dolmens examined seem originally to have been wholly or partly covered by a tumulus of stones. In some cases, as Nos. 5 and 8, this tumulus entirely covered and concealed the whole structure; in other cases it perhaps never rose above the base of the capstone, there are indications that in some cases, as Nos. 2, 5, and 8, the tumulus was not merely heaped together, but roughly built up in two or three concentric terraces.

The dolmens fall structurally into several groups: (a) a very simple form (No. 15) consisting of three orthostatic blocks and a flat capstone; (b) a form constructed of two courses of blocks of which the lower is orthostatic, with a rudimentary passage usually narrowing towards the entrance. The chamber is roofed by a saddle-shaped capstone; this is by far the most frequent form (cf. No. 13); (c) a small "allée couverte" similar to type (b) but with prolonged and very low passage narrowing towards the entrance. The capstone is saddle-shaped; (d) an "allée couverte" with entrance passage of uniform breadth (Nos. 5, 6, 8).

A group of dolmens occurring only on the southern slopes of the southern ridge are peculiar in that they have flat circular capstones (Nos. 19, 22, 23, and 24), in general they resemble form (d).

Finally in a single specimen, No. 20, which also has a circular capstone, the orthostatic principle of construction is abandoned and the walls are built up of three main courses of slabs laid horizontally.

Except in the case of No. 6 which faces north-west, and No. 5, which faces south-east, the entrance looks either east or north-east.

From the lack of contents it is clear that the dolmens have all been rifled. There was usually 20-40 cm. of earth above the local clay and among these were usually found a few flint implements, potsherds, and occasionally beads or other objects. Even in the cases of dolmens Nos. 5 and 8 where the covering tumulus seemed to be intact, the blocks closing the entrance to the dolmen itself had been broken down and the chambers rifled, presumably a way had been cleared among the stones by which an entrance could be effected, and this had in the course of time filled up again.

The potsherds in so far as they were assignable to a definite period were of Roman to Byzantine date, with a very large preponderance of ribbed ware, there were also a few definitely Arab pieces, and the dolmens would seem to have been extensively occupied in Roman and later times, probably as shelters for shepherds or outcasts from the surrounding towns, such as those mentioned in the Gospels as living among the tombs (Mark v. 1). This would also account for the entire absence of burial remains. The presence of fairly numerous worked flints in most of the dolmens seems to show that they cannot be later than the Bronze Age, but these flints, mainly chance flakes, retouched as scrapers, are too atypical for dating purposes.

In two cases where heaps of stones were removed in the hopes of finding a dolmen below, the stones were found to cover and fill in the space between large boulders grouped by nature in such a way as to leave a small space of irregular shape in the centre. In both cases potsherds and other objects were found and the ruins may originally have covered burials.

No. 1 contained seven worked flints, one fragment of glass, and numerous potsherds.

No. 2, one worked flint, one iron object, fragments of glass, two pieces of decorated metal foil, one fragment of bone, potsherds.

In so far as they were characteristic, the sherds were all of Roman date.

In addition to the dolmens numerous remains of stone walls roughly built without mortar are to be found scattered about the hills. These are probably of very various periods. Those still built and used to-day by the local bedouin as cattle enclosures are easily distinguishable, being built exclusively of small stones. Of those built of large blocks the greater part would seem to be connected with terracing for agricultural purposes; a few would seem to be foundations of huts or defensive works.

A circular structure with a diameter of 5·60 metres, of which the wall stands at present something over one metre high, was cleared of the stones, probably fallen from the original wall which filled it. Below the stones, resting on the soil, were found two bronze dagger blades, one of which is slightly decorated (Plate IV, Nos. 4 and 5). The excavations were carried to rock, some 35 cm. below the surface, but no flints or potsherds were found.

On the southern slopes of the northern of the two ridges is another well preserved circular enclosure with a diameter of 4·7 metres. Immediately to the south of this, and forming with it a single structure is a three-sided rectangular enclosure of which the walls stand in places to a height of 1·70 metres, this rectangular enclosure measures 9·7 by 7·3 metres. When found both enclosures were entirely filled with blocks of stone presumably fallen in from the walls. When these stones were removed two low walls were found within the rectangular enclosure (Fig. 11, and Plate III, figs. 2 and 3). Among the fallen stones very numerous potsherds,

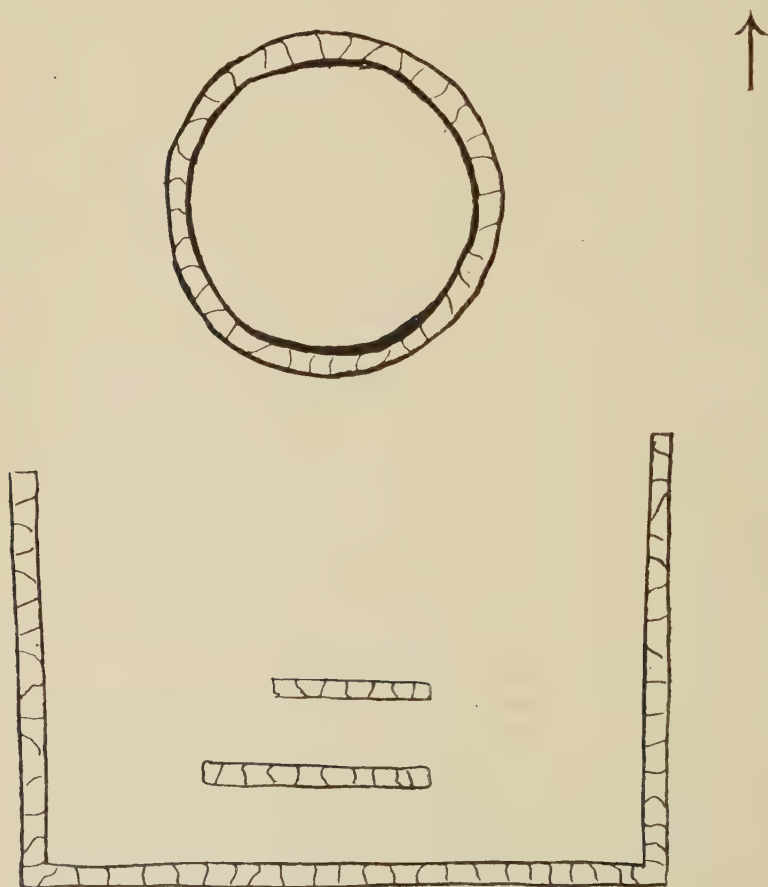


FIG 11.—HUT AND FORECOURT? SCALE $\frac{1}{100}$.

mainly of ribbed Byzantine ware, were found. Below the stones, among some 20 cm. of earth which rested on black clay were found numerous worked flints, and fragments of a very rough badly-baked red pottery; in many cases sherds of this type and flints were found to have been driven by the falling stones a few centimetres into the underlying clay. Neither flints nor this coarse red pottery were found among the overlying fallen stones, and it is clear that they constitute the remains of an occupation before the destruction of, and presumably contemporary with, the building of the walls.

The circular construction, of which the floor was levelled, can perhaps be best regarded as a hut foundation, the rectangular enclosure in front, in which the floor followed the natural slope of the hill as a kind of forecourt (Fig. 11.) No traces of hearths or remains of animal bones were found. The flint implements included the following types; large scrapers made by roughly trimming chance chunks of flint of convenient shape; short thick flakes retouched as scrapers along one side; two small picks, a fabricator, small awls, small blades with blunted back. The potsherds associated with these flints were mostly of coarse gritty ware, hand made and badly baked, they were sometimes decorated with a rope pattern in relief, there was one fragment of greenish-grey ware, and one brown burnished sherd, the whole would seem to be of Neolithic or Early Bronze Age date. See Plate V *a* and *b*.

A second rectangular enclosure of rough megalithic walls situated on the southern slope of the southern ridge contained sherds of rough but well baked red ware, mainly fragments of large pots, there were also fragments of a circular basalt grinding stone; there were no flints and the sherds and grinding stone were all on or just below the surface. A trench dug to rock (50 cm.) produced nothing. The enclosure is probably of late date.

Supplementary Excavations, 1930.

When excavations near Tabgha, Galilee, at the cave Mugharet el-Zuttiyeh, the site of the discovery of the Neanderthal skull fragment (the Galilee Skull) were brought to a close in July, 1926, a sample section, showing the succession of stratified deposits, was for purposes of future reference left standing along the south wall of the cave.

The section thus left measured ten metres long by two broad. To protect it the cave was closed by an iron gate and railing. This closing of the cave caused much inconvenience to the local Semeiri Beduin who had formerly been in the habit of using it as a winter stabling for their goats and led to considerable discontent. At the same time it proved in practice impossible to protect the section efficiently with the result that it was being rapidly broken down. Under these circumstances it was decided to excavate the section, and this was done during October, 1930.

Owing to the rapid upward slope of the cave floor towards the south wall the remaining palæolithic deposit proved to be very narrow, averaging in width not more than 70 cm. and in depth some 50 cm. A number of characteristically middle palæolithic flint implements were found, similar in all respects to those found during the original excavations (1925-26); there were also a few fragments of animal bone. Nothing came to light which would necessitate any alteration or correction in the original excavation report (cf. *Researches in Prehistoric Galilee*).



FIG. 1.—KERAZEH. DOLMEN NO. 1. ENTRANCE, EAST SIDE, BEFORE EXCAVATIONS.



FIG. 2.—DOLMEN NO. 1. SOUTH SIDE.



FIG. 3.—DOLMEN NO. 2. ENTRANCE, AFTER CLEARING STONES.



FIG. 1.—DOLMEN NO. 5. FROM THE WEST.



FIG. 2.—DOLMEN NO. 1. FROM THE NORTH-WEST.



FIG. 3.—DOLMEN NO. 5. ENTRANCE.



FIG. 4.—DOLMEN NO. 17. ENTRANCE.



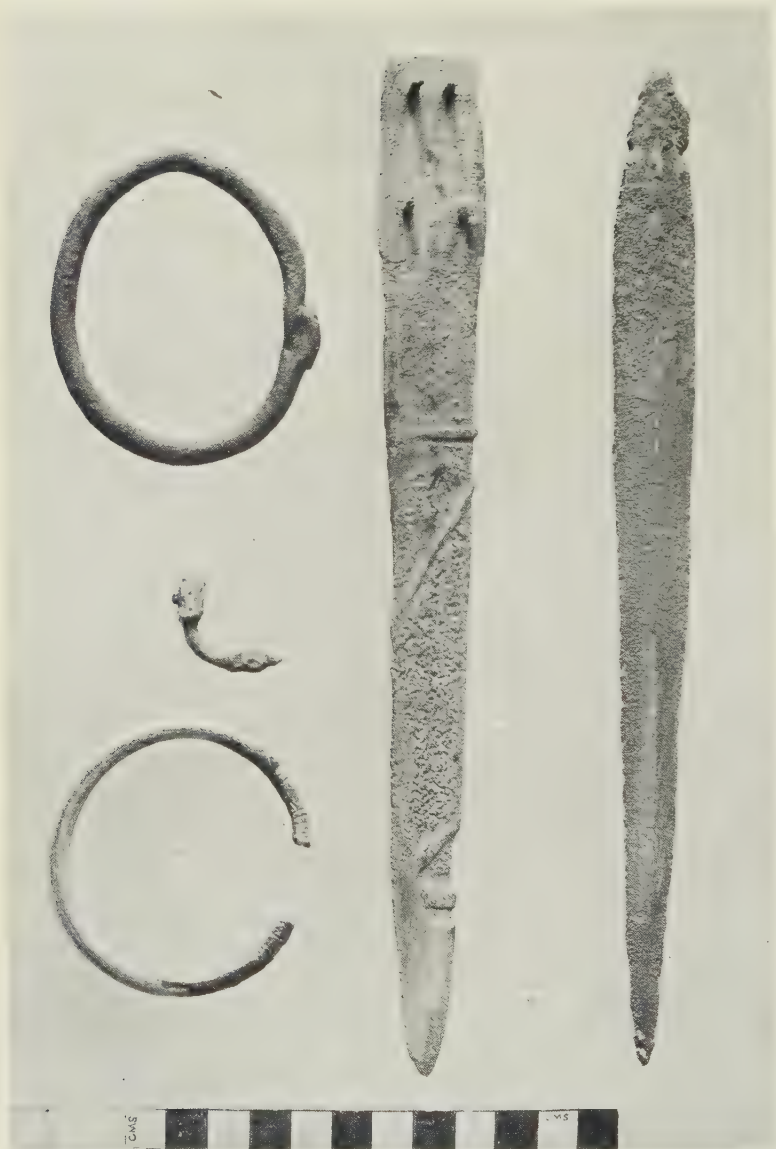
FIG. 1.—DOLMEN NO. 5. BEFORE CLEARING, SOUTH SIDE.



FIG. 2.—THE CIRCULAR HUT, FROM THE SOUTH.



FIG. 3.—RECTANGULAR FORECOURT TO HUT, WEST WALL SEEN FROM EAST



1. IRON BRACELET FROM DOLMEN NO. 17. 2. BRONZE ORNAMENT, DOLMEN NO. 13. 3. SILVER BRACELET, DOLMEN NO. 5. 4 AND 5. BRONZE DAGGERS FROM CIRCULAR ENCLOSURE.



(a)

1. FLINT SAW FROM DOLMEN No. 13. 2. FRAGMENT OF POTTERY WITH
ROPE PATTERN IN RELIEF. 3, 4, 5. FLINT IMPLEMENTS FROM HUT AND
FORECOURT.



(b)

FLINT IMPLEMENTS FROM HUT AND FORECOURT.

AIN SHEMS, 1931.

BY DR. ELIHU GRANT.

THE Haverford Expedition is concluding its fourth campaign on Rumeileh, the ancient mound at Ain Shems, Palestine (1928-29-30-31). Systematically, we have dug all the hill west of the work of Mackenzie in 1912. Now we have opened a piece in the Central (Byzantine) Area between his work and the Greek Monastery which he had already cleared. We are dumping our debris on top of Mackenzie's debris, where possible, and filling some of his central trench which leads northward from the south gate discovered and cleared by Mackenzie. Our excavations this year form a right angle west and north of the Monastery.

For obvious reasons we have one extra stratum to deal with this season which has not been met with in our previous work, viz., the Byzantine-Arab settlement on top of the hill which we sometimes refer to as the Byzantine Area. We suggest that the modern name of the tell, viz., Rumeileh, refers to the Byzantine buildings and means "little Greek" settlement.

Mackenzie's good work drew attention to the importance of the remains of ancient Beth Shemesh at Ain Shems, and the biblical data arouses considerable interest in any discoveries which illuminate the story in 1 Sam. vi. Moreover the locality has meaning for Bible readers from the fact that it is the country of Samson and Delilah. The kinship between the names Samson, Shemesh, Shems, not to mention the root-values and connections between the ancient Eben-ezer and the modern Wely Abn Meizar and Deir Aban (village), the presence of the valley of Sorek, and a distant view of Sara'a (ancient Zorah ?), the colony of Artuf, and, not far away, the stone altar between Artuf and Sara'a, sometimes referred to locally as the Artuf-stone and sometimes as the altar of Manweh (Manoah), all these points are but suggestive of the ancient lore which will accommodate itself to this old Canaanite region.

Beth Shemesh was a small Canaanite town successively dominated by outsiders under the Hyksos, Egyptians, Philistines, and Hebrews. Its population probably always continued to be Canaanite from 1800 B.C., at the latest, down to 600 B.C., near which time it was wrecked by the Babylonians (Nebuchadnezzar II).

Beth Shemesh has been known for twenty years to yield richly ancient painted pottery. Latterly it has sustained this reputation, and many beautiful specimens of imported vases, etc., besides local imitations and adaptations, have been taken out of its ruins. From its ceramic, its jewellery, its bronze, alabaster, etc., it has revealed its political connections with Egypt and its commercial relations with Cyprus. It was a lively place between 1700 and 1200 B.C., and a strongly built, important town in the Early Iron Age from 1200 to about 1000 B.C. In those ages the city was walled.

Three distinct phases of the defensive circumvallation are noted. From the time of Solomon and onwards the city-wall was but a stump on which the builders of houses, shops, bins, etc., found building stone and a floor for their rooms. The Palestine Exploration Fund determined the circuit of the walls, often tunnelling with tools, baskets, and candles along its outer face. This is a great help in finding our way about the city.

In earlier numbers of the *Quarterly Statement* one will find descriptive material on the Haverford succession in archaeological work to the labours of the Fund's archaeologist, Duncan Mackenzie¹. It was a happy stroke of policy that brought this trained Mediterranean scholar to explore Beth Shemesh, whose trade drew on the ceramic output of Cyprus and other Mediterranean countries. He was able to make comparative studies of the local situation of great importance. See the *P.E.F. Annuals* I (1911), II (1912-13). See also the writer's "Beth Shemesh" volume, Haverford College, Pennsylvania, 1929, &c.

This year, after mapping and removing the Byzantine-Arab material near the top of our trenches we found the usual succession of Later Iron (about 1000-600 B.C.), Early Iron (1200-1000 B.C.), Late Bronze (1600-1200 B.C.), and Middle Bronze (1600 B.C. and back to some date subsequent to 2000 B.C.) settlements.

In the Byzantine Area we found the outlying buildings pertaining to the Monastery. There was a defensive outwork and evidences of bad smashing of the wall on the north-east.

The large strong lines of the Byzantine buildings were chopped and contorted into little chambers, bins, and other conveniences of the small structures of Arab times. Much Byzantine stone was re-used in this way. Quantities of Byzantine-Arab painted pottery,

(¹) *Q.S.*, 1928, p. 179; 1929, p. 201; 1930, p. 133.

glazed ware, badly broken up, was gathered. We have made sketches of certain of the designs. Byzantine builders went deeper for their bases than did their predecessors, generally, which accounts for a certain poverty of remains in the second level below the surface (II Later Iron, Israelite control). However, we are able to show the main lines of that occupation which perished a thousand years before the settlement in the age of Justinian (?) or somewhat earlier.

The third level (III) from the surface, Early Iron, was also a deep builder and appears to us now as being in two phases. It conserved some of the pottery forms descending from the Late Bronze (IV) occupation and exhibits the excellent, strong ware of true Early Iron. The period included the Philistine control of this part of Palestine, whence the name Palestine (Peleset) derives. Its ruin was accompanied by most terrible conflagrations. One is inclined to link the destructive force with that of the Pharaoh who took Gezer and burned that town, giving it to his daughter, the wife of Solomon. I have always wondered at the taste exhibited in burning a wedding present before offering it.

Late Bronze and Middle Bronze appears as usual in our pottery and walls, though perhaps with a diminution of their witness as compared with the seasons of 1928 and 1929. The results this year are more nearly comparable with those of 1930.

In continuing a few metres of excavation at the north of our 1930 trench, we have this year come on a very fine black granite bowl, ground in artistic fashion and provided with cylindrical, pierced handles, one on either side. Also there is a bronze group, lion and lioness, about two inches over all, including the square plate on which they stand. A pin beneath the plate shows that the ornament was to be used as a terminal, perhaps on a staff, or wooden holder.

In the central area (Byzantine region) we have found a number of scarabs of steatite, some in bronze rings, one with a cartouche, purporting to be of Thothmes III, a large nine-handled pot over two feet high with a rope moulding at the line of the handle bases, an oil establishment with two stone vats, one square, the other round, each served by two yard-high jars with four handles apiece. On the shoulder of one of these four jars is a potter's scratching of a ⊕ two inches across. Each jar was set in masonry. Olive pits, charred, were found inside.

Considerable painted ware of the kind usually called Philistine has turned up, also several forms of the chalice, painted and plain, carinated bowls, bilbils, stirrup-vase, jugs developed from the pyx form, Cypriote milk-bowls with wishbone handle, the thick flask with painted spirals on the sides and terminating in a saucer-like extension of the mouth, seals, stamps, beads, bronze weapons. In one tiny dipper jug small lumps of sulphur occurred. A fragment of an iron tool showed bronze rivets by which it was fixed in its handle, probably of wood. Large masses of bronze were laid by in the sizable fragment of a clay jar. Lamps abound and a few shapes new to us of odd dishes. One open dish with tubular rim shows a modelled boar's head and fore-quarter as he steps into the dish apparently to charge a man of whom only the heels remain.

There remain certain seasons of work to be done on the *tell*, particularly on the northern side. The life of the place can be surmised and partly read from the pre-war and recent expeditions to its interior. There remains, too, the search for the cemeteries of which there should be considerable additions to those known to us.

Where was the great rock, in the field of Joshua the Beth-Shemite, on which the labouring cows were ungraciously slain? Was it the rock-shelving on which the present mosque stands, or was it the platform-like mass beneath the olive trees on the left of the road (west) as one goes to the railway station of Artuf, a kilometre away?

Beth Shemesh is redolent of the older Canaan. Its population was, in all probability, always Canaanite, whether the masters were one foreigner, or another, for one or several hundred years. One can hardly believe that either Philistine or Hebrew turned to the making of pottery or other craft native to the place soon after gaining possession. Whether in prosperity, or poverty, the Canaanite native carried on the humbler life of the place. Possibly he helps us to dig open the strata of remains for archaeology at this day.

A HEBREW OSSUARY INSCRIPTION.

BY DR. B. MAISLER, JERUSALEM.

IN the "Bezalel" Art Museum in Jerusalem, Mr. Narkis, the curator of the Museum, has drawn my attention to some interesting ossuaries. One of them, which has been found in a cavern on Mount Scopus before the war and has been bought by Prof. Schatz, is of special interest.

This ossuary is 48 cm. long, 22 cm. wide and 26 cm. high. The ossuary is painted red and contains four small legs. The front of the ossuary is adorned with a geometrical ornament. The ornament consists of the rosettes, which are surrounded by a rim of zigzag lines and parted from each other by similar lines. The number of the rays of the rosettes is six. On the narrow side of the ossuary there are also ornaments. On the narrow side recurs the rosette with six stars, on the other side the ornament consists of lines crossing each other.

Now the gable-shaped cover of the ossuary is above all interesting. On the front of the cover a tree is designed, and near by, on the right side, there is a Hebrew inscription in which we can read the name of the dead person **שלמצי בת שמי** "Shalamši, daughter of Shammai." The same inscription surrounded by a frame recurs on the other side of the cover.

The name **שלמצי** is doubtless the abbreviation of the name **שלמציין**. It has already often been remarked that this name, which is frequently found on the Jewish ossuaries of Jerusalem, ¹ has been abbreviated in different ways; so in the Talmudic literature the abbreviations,—sa, —so, —si are found ². These abbreviations are used for the name of the Jewish Queen Alexandra Salome (76-67 B.C.) ³.

¹ See Clermont-Ganneau, *Archaeological Researches in Palestine*, I. (1899), pp. 386-392; L. A. Mayer, *British School of Archaeology in Jerusalem*, Bull. No. 5 (1924), p. 59 No. 3; S. Klein, *Jüdisch-Palästinisches Corpus Inscriptionum*, p. 9, 11, 13, 27, 53-54.

² See Derenbourg, *Essai sur l'histoire de la Palestine*, p. 102; Clermont-Ganneau, *ib.* p. 389; J. Klausner, *Historiya Israelit* II. (2nd ed.) (1924), p. 139.

³ See Schürer, *Geschichte des Volkes Israel im Zeitalter Jesu Christi* I, (4th ed.) p. 287, note 2; Klausner, *ib.* p. 139 s.q.

It is also to be noted that a daughter of Herod is recorded by Josephus as Σαλαμψιώ⁴.

Concerning the name שמי, it appears in the later Biblical literature as well as in the Talmud. In the Bible, Shammai appears in the book of Chronicles in the genealogical list connected with Jerahmeel (1 Chron. ii, 28, 32), and with Caleb, son of Hezron (1 Chr. ii, 44 *sq.*). The forms שמי, and שמיאי are both found in the Talmud. From the Talmud Shammai (שמיאי) the elder, the contender of Hillel, is known to all. In the Talmud the village of Shammai (שמי) is also mentioned⁵. Now שמי is doubtless the ancient Hebrew name, while שמיאי seems to be the Aramaized form of the same name.

The ossuary inscription discussed here apparently belongs to the first century B.C. and is important because of the two names which, to my knowledge, have not yet been found on any inscription elsewhere.

Jerusalem, May 8th, 1931.

⁴ *Ant. Jud.* XVIII, 5, 4.

⁵ See Levy, *Neuhebr. und Chald. Wörterbuch*, IV. p. 571.

NOTICES OF JOURNALS, ETC.

In the *Jewish Quarterly Review*, January, Rabbi Joseph Marcus reports the discovery of a new leaf of the original Hebrew of Ben Sira (Ecclesiasticus), a most welcome supplement to the exciting discoveries of some thirty years ago, and of special value in that (a) the fragment covers xxxii. 16—xxxiv. 1, and thus gives a portion of the verses between xxxiii. 3 and xxxv. 11, for which the Hebrew original has been wanting, and (b) it does not contain the misplacement of xxx. 25—xxxiii. 16, after xxxvi. 12, as in the Greek MSS. F. W. O'Connor reviews Israel Kigler's book on *The Epidemiology and Control of Malaria in Palestine* (Chicago Univ. Press, 1930, pp. xv. + 240). Dr. Robert Eisler defends his views of the witness of Josephus to the life and death of Jesus and the relationship of the Slavonic translation to the original text of the *Jewish Wars* in the July-October issue, in reply to Prof. Solomon Zeitlin's criticisms there and elsewhere. To the same versatile scholar is due the article on the Mark of Cain and the Kenites in *Le Monde Oriental*, vol. xxiii, fasc. 1-3, a journal useful to students for its Comptes-Rendus (mostly by Nyberg). Important reviews are contributed to the same number of the *J.Q.R.* by Mr. Norman Bentwich on E. R. Goodenough, *The Jurisprudence of the Jewish Courts in Egypt* (from the evidence of Philo Judæus) and on M. S. Ginsburg's *Rome et la Judée*. Hoschander's surveys of Biblical literature, here and in other numbers are as usual interesting and informing: on this occasion he deals at length with the recent work of Sellin, Kittel (histories of Israel), Pedersen (life and culture of Israel), and Baynes (outline of Old Testament history).

Of great interest for the present purpose is Prof. Albright's review of the P.E.F. *Annals*, 1923-25 and 1927 (*J.Q.R.* 1930, pp. 163-168). He remarks that the Ophel hill was occupied more or less continuously from the third millennium to the Mamluke period. There is, however, no sign of "tell" formation, and he suggests that it was bodily removed before the Early Roman period, similarly "the Roman builders of Characmoba (Kerak) cleared the acropolis down to the rock, dumping all the debris of occupation on the edge of the cliff, where we find it to-day." So, on the sides of the

Ophel hill are vast quantities of debris which, as far as investigated, belong to the Bronze and Early Iron Ages, including the Hellenistic period. Josephus (*Ant.* xiii, vi. 7) probably exaggerated, but he at least testified to the way in which the area and the hill were levelled to the ground. After various criticisms on the ware, he points out that the discussion of the inscribed potsherd (pp. 181 sqq.) should now be supplemented by the fresh study of it given by him in the *Journal of the Palestine Oriental Society*, vi, 88 sqq., and that of the stamped jar-handles by the account given in that journal (pp. 93 sqq.), together with Vincent's remarks, *Revue Biblique*, 1926, p. 635 sq. He thoroughly approves of Mr. FitzGerald's avoidance of such ambiguous terms as "Jebusite" and "Maccabæan"; but considers that the lam-melek handles should be dated exclusively to the eighth and seventh centuries B.C. "Mr. FitzGerald's description of the pottery of the Hellenistic Age is exceedingly good, and should be mastered by all students of this subject. In future, Rhodian jar-handles will provide a means of dating superior even to coins." He goes on to say: "Just as the magnificent section of early city wall found by Duncan on the eastern side of 'Ophel' was the outstanding discovery of the 1923-5 campaigns, so the massive gateway on the eastern side has been the *pièce de résistance* of Crowfoot's work." He considers that the results go to confirm the view that the Jerusalem of Solomon and Nehemiah was confined to the eastern hill. The new gate found in 1927, he thinks, is the old Dung Gate, not the Valley Gate; the eastern ("Jebusite") *revêtement*, he is inclined to refer to the Xth century B.C., on account of the regularly laid courses. The so-called Solomon repairs which resemble the masonry of the IXth century at Samaria, should be considerably later, perhaps from the Vth century B.C. "Crowfoot's work on the W. side of Ophel in 1928, where the evidence of Rhodian jar handles and coins proved decisive, shows that masonry resembling the IXth century work at Samaria in just such a vague way actually belongs to the IIIrd century B.C." Prof. Albright concludes with these generous words:—

"The P.E.F. and its distinguished excavators deserve hearty thanks from all students of Ancient Palestine for the self-sacrificing work which they have devoted to the excavation of Ophel and the publication of its results. We can only hope that the work will be continued under Mr. Crowfoot's efficient direction, and that brilliant discoveries will reward his patience."

A very interesting survey of "a millennium of Biblical History in the light of recent excavations" is given by Prof. Albright (reprint from the proceedings of *American Philosophical Society*, lxix, No. 7, pp. 441-461). It contains a useful summary of his latest views with complete bibliographical references. To take one point only, he comments on the discovery that Beit Mirsim in the south of Judah (Kirjath-Sepher) was devoted to the manufacture of woollen goods, and that we know from 1 Chron. iv., etc. (which he considers pre-exilic) that "certain towns were occupied by members of the guild of metal-workers, others by potters, still others by manufacturers of linen goods, etc." Now Dr. Eisler, in the article in the *J.Q.R.* referred to above, works out an elaborate theory of the Kenites as a guild of smiths, the traditions of the origin of certain aspects of society (Gen. iv.), the Kenite genealogies in 1 Chron. ii. and iv. and the evidence for guilds and castes. Moreover, several years ago Prof. Macalister very cleverly suggested that there was a connection between the jar stamps (with the names Hebron, Socoh, etc.) and the evidence for the "craftsmen of Judah" (the title of the chapter in his *Bible Side-Lights from the Mount of Gezer*). The present writer, in turn, has more than once suggested that a connexion can be traced between the traditions of local guilds and castes (in the *post-exilic* age), and of the rise of civilisation, the evidence of the southern origin of Levitical and related bodies, and the peculiar interest which the chronicler (*post-exilic*) takes in the *personnel* of the (Second) Temple. It will be obvious that there is room for further inquiry into the archaeological and biblical evidence, and, while on many questions it would be rash to be dogmatic, it is quite clear that, as Prof. Albright remarks, in pre-exilic times, the conditions among the Jews were already economically complex, and "the commercial expansion of Jewry under the conditions of the Diaspora was by no means so sudden as used to be thought, but was simply an acceleration of an otherwise normal evolution."

In the *Bulletin of the American Schools of Oriental Research*, October, 1930, Prof. Albright summarizes the third campaign at Tell Beit Mirsim, which he identifies with Kirjath-Sepher. In stratum F the excavators found five entirely distinct strata, each separated from the others by burned levels; [there was also a relatively continuous burned level in the middle of stratum C, making a total of eleven complete conflagrations. This discovery of six distinct strata in the Middle Bronze Age is of the highest importance for the

history of Palestinian ceramics. In E and D (of the Hyksos age) was the palace (partly cleared in 1928), with the stele of the serpent goddess, and with a unique complete set of game-pieces. It is probable that D was destroyed by Amosis I, who conquered South Palestine about 1560 (the date adopted by Prof. Albright). C was remarkable for two separate periods of occupation, separated by a burned level. Among the most interesting "finds" were (1) a stone lion of inferior artistic value, but an example of genuine native workmanship, (2) a table of offerings, with three lions carved in relief (both c. 1400 B.C.), in B were (3) five Astarte figurines, unique as representing the goddess in travail: since these are found in an "exclusively Israelite level," they are exceptionally important for our knowledge of popular religion before the Monarchy. (4) A broken ostrakon bears the letter *kaf* "of the archaic type which disappeared before 900 B.C. in Phœnicia, and has hitherto not been found in Palestine at all." The A level contained inscribed ostraca, dating c. 800-600 B.C., and a duplicate of the stamp of Eliakim, servant of Joiachin (found in 1928), a third and identical example was also found at Beth-Shemesh by Prof. Elihu Grant. "The evidence for the influential position of Eliakim makes it almost certain that he was a person of great consequence, perhaps the steward of Joiachin's property during the regency of Zedekiah." In the same *Bulletin*, Director C. C. McCown gives an account of a trip in Transjordan. The megalithic and the Roman-Byzantine remains are especially important, and he infers that "a race of peculiar genius inhabited the land when its megalithic monuments were erected."

"At that time, and again in the Middle Bronze period, Transjordan was the seat of a vigorous civilisation. Plainly it was much less prosperous in the Early Iron Age, the Hebrew Period. Certainly it reached its highest development in the first six centuries of the Christian era. The reasons why civilization developed during that time and then quickly disappeared, and the stages through which it passed, constituted most important subjects of investigation, with distinct bearing upon both the past and the future history of civilization in general and of Christianity in particular."

The Metropolitan Museum of Art, New York, publishes a report of its recent excavations at Thebes (by H. E. Winlock), with a

statement of the work of the graphic department (by N. de G. Davies). The latter is noteworthy for its sceptical attitude towards the value of Egyptian representations of foreigners and their art. For example, in one of the tombs (No. 86) typical Syrians are described as Cretan and Hittite; and even as regards the booty from the Asiatic conquests of Thutmose III, the treasure may be of Egyptian manufacture. Of course there may be independent confirmation, *e.g.*, the Egyptian tradition as regards Crete is found to be essentially correct; but an illustration (p. 35) of "pretended Syrian flora" shows us how—so it is suggested—the Egyptian could invent the flora he had failed to collect. The pages are at all events challenging, and the details which Mr. Davies gives, in support of some of his doubts, will doubtless receive the careful attention of the experts. He is undoubtedly justified in emphasising the extent to which Syria was Egyptianized, and in his suggestion that "Syria—to speak of that country alone—often gave back to Egypt only what she had already received." In view of the weight usually attached to the evidence of the Egyptian monuments for the ethnology and culture of South-west Asia and the Levant, we shall look forward with interest to the reply which is due from those who are less sceptical.

The most interesting feature of the *Journal of the Palestine Oriental Society*, Vol. X, Nos. 2-3, is an extensive report by Dr. Hans Kjaer, of the Danish excavation of Shiloh (1929). It is considerably fuller than that published in the *Q.S.*, but each supplements the other. Dr. B. Maisler writes on Pre-Davidic Jerusalem. He agrees that it is mentioned with Askalon, and other important cities in the Egyptian texts of the Middle Empire (see *Q.S.*, 1929, p. 121), and accepts Prof. Böhl's evidence for the cuneiform text, wherein the goddess Ishtar of Uru-silim-ma (Jerusalem) is Shul-ma-ni-tu. It is suggested that there was a divine pair Shalem (Shulmanu) and Shulmanitu (Shulamith), patrons of the city, so that when David restored the city he gave his favourite sons the significant names, Absalom and Solomon. Maisler thinks that, as Jerusalem was of old a sacred city, David founded his temple upon the site of the earlier sanctuary of El Elyon (Gen. xiv. 18-20). Already in the Amarna Letters (*c.* 1400 B.C.) the city was the centre of a considerable district. We must regard the people as Amorites rather than as Canaanites, and the name of the king of Jerusalem in the Amarna period (Abdi-Khiha) is to be associated with that of Eliahba (2 Sam. xxiii., 32) or

Eli-hiba. On the other hand, the Jebusites were Hittite, and it is suggested that Araunah—like Uriah—was Hittite. But the Hittite movement downwards is not to be placed so early as about 1400, but rather about 1200, at the beginning of the period of the Judges. Here Dr. Maisler refers to a very interesting monograph of his on the history and ethnography of Syria and Palestine (Giessen, 1930), wherein he begins a special study of the non-Hebrew elements in the ancient population. The Amorites and Canaanites form the subject of the first instalment; herein he insists upon the necessity of distinguishing between the two. While on the subject of history, reference should be made to Weill's study of the Achæans of Asia Minor and the problems of their intrusion into the Mediterranean in the second Millennium B.C. (*Journal Asiatique*, Jan.-March, 1930, pp. 77-108). With this should be read G. W. Brown's suggested connexion between the language of Mitanni, N. Syria, in the Amarna Age, and Dravidian (*Journal of the American Oriental Society*, Dec., 1930, pp. 273-305). (At the proceedings of the Society at Toronto, Prof. W. R. Taylor reported that the Samaritan inscription from an old synagogue in Gaza, which has been missing for over fifty years, has at last been found by him in a house in Jerusalem; it is probably older than the VIth cent., A.D. Furthermore, he reported that a boundary-stone of Gezer was found built in the wall of a house in Jerusalem.)

Archäologisches Institut des Deutschen Reiches; Die hundertjahrfeier, 1929 (Berlin, 1930). This report of the centenary of the Institute includes summaries of numerous important papers. Among them is that of our late President, Dr. Hall, who describes the excavations in Ur, 1918-29. Accounts are given by Professors Reuther and Kühnel, of the German excavations at Ctesiphon, and by Dr. Jordan, of the German investigations at Warka. Dr. Sukenik, of Jerusalem, spoke on the recent work in excavating the synagogues of North Palestine, with special reference to Beth-Alpha, and its mosaic of the Zodiac, etc. As this is the most interesting synagogue yet discovered, one rich in "finds," and that can be dated (517-28 A.D.), we shall look forward with keen interest to the full account which is to be expected from his pen.

S. A. C.

THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Annual General Meeting of the British School of Archæology in Jerusalem took place on Friday, 2nd October, at the rooms of the Society of Antiquaries, Burlington House, W.1., Sir John Chancellor, late High Commissioner for Palestine, presiding. The Director, Mr. J. W. Crowfoot, C.B.E., M.A., described the Excavations at Samaria, and Miss D. A. E. Garrod gave an account of the season's work in the Palæolithic Caves at Athlit. A report of the meeting will appear in the January, 1932, issue.

We regret to have to record the death of Canon John Neale Dalton, K.C.V.O., member of the Executive Committee of the Fund since 1894. Canon Dalton, as tutor to our King and his elder brother, Prince Albert Victor, accompanied them in their journey through Palestine in 1882, and a report of their visit to the Haram at Hebron on 5th April was, at the request of Prince Victor, communicated by Colonel (then Captain) Conder, with an additional note by Sir Charles Wilson. These and other reports on the journey were printed in the *Q.S.* of that year. In 1895 the Canon contributed a few notes (the "First Wall of Jerusalem" and other topics), and subsequently wrote articles on a Latin inscription found in Jerusalem (1896) and on the visit of "David the Reubenite" in 1523 to the Hebron Haram (1897). Three years later he wrote on some points arising out of Vol. I of M. Clermont-Ganneau's *Archæological Researches* in Palestine. Canon Dalton died on July 28, at the advanced age of 91.

M. de Genouillac (*Syria*, x, 307 sq.) reports that at a meeting at Bagdad attended by Messrs. Woolley and Frankfort, it was proposed to come to an agreement as to the terms to be employed in describing Mesopotamian pottery.

1. Slip: French, "engobe"; German, "engobe":—pâte d'argile fine ajoutée après la confection du vase.

2. Wheel-finished : French, "mouillé" ; German, "geglaettete Oberflache" :—en parlant d'un vase dont la surface a été polie à la main, mouillée sur le tour, sans addition d'autre élément.
 3. Wash : French, "enduit coloré non argileux" ; German, Farb-Ueberzug :—peinture ou matière colorée sans mélange d'argile.
 4. Glazed : French, "émailé" ; German, "emalliert" :—couverte de pâte siliceuse vitrifiée au feu.
 5. Burnished : French, "lissé" ; German, "poliert" :—poli au brunissoir ou avec un os.
 6. Matt paint : French, "peinture mate" ; German, "Mattmalerei."
 7. Lustre paint : French, "peinture lustrée" ; German, "Lustremalerei."
 8. Frit : French and German, "fritte" :—Pâte vitrifiable non portée jusqu'à vitrification.
 9. Reserve slip : French, "réserve d'engobe" ; German, "unterbrochene Engobe" :—interruption de l'engobe.
- It was decided to drop the term "vernissé."

Annual No. 5 (see advertisement on back cover of *Quarterly Statement*) contains Mr. Crowfoot's report on his work at Ophel and the Tyropoeon Valley during the excavating season of 1927. He was assisted by Mr. G. M. FitzGerald, Assistant-Director of the British School of Archæology, who has written the second part of the book dealing with the pottery and smaller finds, while Mr. Crowfoot describes the buildings and levels, analysing the stratification of the site from the earliest times to the Arab Conquest and the Crusading period. The volume contains as frontispiece the Old Gate from the north-west, 22 other plates, and 21 illustrations, there are 131 pages of letterpress and an index. Price 31s. 6d. to non-members.

By an arrangement with Sir Flinders Petrie, Members of the P.E.F. are enabled to purchase at half the published price the Reports of the British School of Archæology in Egypt dealing with

the Society's researches in Palestine. Reciprocally, the excavation Reports of the P.E.F. henceforth issued are available to Members of the School in Egypt similarly at half-price. P.E.F. Members desirous of taking advantage of this privilege should apply to the Secretary, 2, Hinde Street, W.1.

Antiques for Sale.—A small collection of antiquities from the excavations at Ophel is on view at the Museum of the Fund, 2, Hinde Street, Manchester Square, W.1, and a number of duplicates including pottery lamps, stamped Rhodian jar-handles, etc., are on sale.

Miss C. M. Finn has kindly presented to the Fund seven pieces of Archaic Greek pottery, five vases of which are certified by the British Museum as Corinthian ware dating from the seventh century, B.C. Miss Finn instructs that they be offered for sale, and that the proceeds be devoted to the work of the Fund. Interested collectors are invited to call at 2, Hinde Street, and inspect them.

The new plan of Jerusalem on a scale of approximately 1 : 5,000, or about 12 inches to a mile, recently published by the Pro-Jerusalem Society, is now on sale at the P.E.F. office. Unmounted it measures 39 × 34 inches, and the price is 5s. ; mounted on cotton and folded to size 8 × 6 inches, price 9s. The latter form is the more convenient, as owing to its size the unmounted sheet cannot be sent through the post without a fold.

Churches at Jerash.—A Preliminary Report of the Joint Yale-British School Expeditions to Jerash, 1928-1930, by J. W. Crowfoot, C.B.E., M.A., has been published as Supplementary Paper No. 3 by the Council of the British School of Archæology in Jerusalem, and can be obtained at 2, Hinde Street. Price 5s. The reduced price to members of the P.E.F. or B.S.A.J. is 2s. 6d.

The library of the Palestine Exploration Fund contains some duplicate volumes. They may be purchased, and a list, with the price of each volume, has been prepared, and can be obtained on application.

The list of books received will be found on p. 183.

It may be well to mention that plans and photographs alluded to in the reports from Jerusalem and elsewhere cannot all be published, but they are preserved in the office of the Fund, where they may be seen by subscribers.

The Committee gratefully acknowledge the following special contributions from:—

	£	s.	d.
George Mathieson, Esq.	25	0	0
Mrs. Traquair (for equal division P.E.F. and B.S.A.J.)	10	0	0
Miss A. M. Parker	1	1	0

The *Annual Report*, with Accounts and List of Subscriptions for 1930, was issued with the April number.

A complete set of the *Quarterly Statements*, 1869-1910, containing some of the early letters (now scarce), with an index, 1869-1910, bound in the Palestine Exploration Fund cases, can be had. Price on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The price of a complete set of the translations published by the Palestine Pilgrims' Text Society, in 13 volumes, with general index, bound in cloth, is £15 15s. Subscriber's price £14 14s. A catalogue describing the contents of each volume can be had on application to the Secretary, 2, Hinde Street, Manchester Square, W.1.

The Museum at the Office of the Fund, 2, Hinde Street, Manchester Square, W.1, is open to visitors every week-day from 10 o'clock till 5 except Saturdays, when it is closed at 1 p.m.

Subscribers in U.S.A. to the work of the Fund will please note that they can procure copies of any of the publications from Prof. Randall, Honorary General Secretary to the Fund (see address on cover).

The Committee have to acknowledge with thanks the following :—

Egyptian Colonies in Britain. By Rev. D. Lee Pitcairn, M.A.
Bath Literary and Philosophical Association, 1931.

The Land of Troy and Tarsus. By J. E. Wetherell. (Rel. Tract Soc.,
7s. 6d.).

The Near East. July 23 : South Arabian types (cf. June 25.).

The Expository Times. August. Recent biblical archæology, by
Rev. J. W. Jack.

The New Judæa.

Journal of the American Oriental Society, June. The Palmyrene gods
at Dura-Europos, by Clark Hopkins.

American Geographical Review, July : "Domestic and municipal
waterworks in ancient Mediterranean lands," by Ellen Churchill
Semple.

Journal of the Society of Oriental Research, Nov., 1930 : The possible
dependence of the Wisdom of Amen-em-apt on the book of
Proverbs, by R. O. Kevin.

The American Journal of Philology.

The Homiletic Review.

Bulletin of the Metropolitan Museum of Art.

Journal of the Museum of Pennsylvania, xxii. 2.

Jewish Quarterly Review.

American Institute for Persian Art and Archæology, Bulletin, i.

Journal Asiatique, July-Sept., 1930 : The spring campaign (1929) at
Telloh, by H. de Genouillac.

Syria, xii. 1 : Ras Shamra, report of second campaign, by F.—A.
Schaeffer ; decipherment of the alphabetical tablets, by Ch.
Virolleaud ; remarks on the tablets, by R. Dussaud ; beginning
of the metal age in the grottoes of the Judæan desert, by R.
Neuville and A. Mallon ; gods and horses, by M. Rostovtzeff ;
summary of Swedish excavations in Cyprus, by E. Gjerstad and
F.—A. Schaeffer.

De Weg der Menschheid : Palestina, by Dr. Franz Böhl. (H. J. Paris,
Amsterdam, 1931. 2.40 fl.).

Geschichte des Volkes Israel. By Prof. Anton Jirku. (Meyer, Leipzig.
8.40 m.).

Orientalistische Literaturzeitung. Numerous reviews (Garstang's Hittite Empire, by Przeworski, col. 534); An Aramaic inscription from Roman Cologne, by J. Scheftelowitz (col. 506); Archæological illustrations of Ps. xviii. 34, cxliv. 1.

Archiv für Orientforschung, vi.: The significance of rock-architecture, by E. Brandenburg; the interrelationship of Egyptian and Greek cult, by W. Wolf; priests and laymen in the Vth cent. B.C., by A. Bentzen; summaries of recent excavation, etc.

Zeitschrift des Deutschen Palaestina-Vereins, liv. 3: The territorial history of ancient S.W. Palestine, by Gustav Beyer; Diocletianopolis and Sariphæa, by A. Alt, etc.

Associazione Internazionale Studi Mediterranei, Bollettino, ii. 2: Excavations in Ardea, by A. Boethius, etc.; Italian excavations at Tebtunis, by Carlo Anti, etc.

Journal of the Palestine Oriental Society, xi, 1: the tablets of Ras Shamra, by Dhorme; the rose of Jericho, by G. M. Crowfoot and L. Baldensperger; notes on the Ghor, by A. Mallon, etc. xi. 2: topographical researches in the Shephelah, by A. Saaristo; the third campaign at Tell Beit Mirsim, by W. Albright.

Archiv Orientalni: Journal of the Czechoslovak Oriental Institute, Prague. April: Oriental religious elements in the Greek magical papyri of Egypt, by T. Hopfner.

La Revue de l'Académie Arabe, May-June.

Bible Lands, July: Hebron; the ethical system of Judaism, by Canon Danby.

Al-Mashriq, July: Dilebta, by P. Raphael; Der ez-Zor, by P. F. Taoutel, etc.

The Quarterly of the Department of Antiquities in Palestine, i. 1: A hoard of Phœnician coins; Medieval Ajlun; a Fatimid coin-die, etc.

Die Niederschlagsverhältnisse im südlichen Libanon Pal. und Nord. Sinai, by Dr. D. Ashbel, Hebrew University Jerusalem (Berlin, 1930).

NEA ΣΙΩΝ

From Mr. Pilcher: *Journal of the Royal Asiatic Society*.

See also below p. 222 sqq.

The Committee will be grateful to any subscribers who may be disposed to present to the Fund any of the following books:—

The Memoirs of the Survey of Western Palestine.

The Quarterly Statement, from 1869 up to date.

Duc de Luynes, *Voyage à la Mer Morte* (1864) ; published about 1874.

K. von Raumer, *Der Zug der Isräiliten*. (Leipzig, 1837).

Lagarde, *Onomastica Sacra* (1887).

Le Strange *Palestine Under the Moslems* (1890).

New Edition of the Babylonian Talmud, English Translation. Original text edited, formulated, and punctuated by Michael L. Rodkinson.

Revised and corrected by the Rev. Dr. Isaac M. Wise. Published by the New Amsterdam Book Company, New York. Vol. i, *Sabbath* already in the Library ; subsequent volumes wanted.

Whilst desiring to give publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they do not necessarily sanction or adopt them.

FORM OF BEQUEST TO THE PALESTINE EXPLORATION FUND.

I give to the Palestine Exploration Fund, London, the sum of——— to be applied towards the General Work of the Fund : and I direct that the said sum be paid, free of legacy Duty, and that the Receipt of the Treasurer of the Palestine Exploration Fund shall be a sufficient discharge for the same.

NOTE.— *Three Witnesses are necessary to a Will by the Law of the United States of America, and Two by the Law of the United Kingdom.*

THE WALLS OF JERICHO.

THE MARSTON-MELCHETT EXPEDITION OF 1931.

BY PROF. J. GARSTANG, M.A., D.Sc., LL.D.

FURTHER excavations made in the Spring of this year upon the site of old Jericho have confirmed in numerous details the conclusions arrived at in the previous year, as described in the *Q.S.* for July, 1930, while adding material for further study. It will be convenient at the outset to adopt a nomenclature which will indicate briefly the various city walls and levels, beginning with the lowest period of fortification. :—

City A. Early Bronze Age (c. 2,500 B.C.).

A wall of flat slab bricks (see bottom of Fig. 4) has been located on two sides around the summit of the mound. To judge by the contours which we have endeavoured to trace through the lower levels, the enclosed area would be about 4 acres in extent abutting in its south east corner upon the site of the spring. These earliest remains of a walled city overlies a considerable depth of prehistoric debris, and the stratum itself is generally about 1 metre deep.

City B. Middle Bronze Age I (c. 2,000 B.C.).

The enclosing wall of stout sun-dried bricks represented in the Plan Pl. 1, has been traced around the north and west sides. Its south-western corner is indicated by a join in the masonry, shown in Fig. 2; while its general line on the east is made fairly clear by the excavation at the east end of Trench k in Square E8. It seems probable that the wall links up with the great tower on the eastern side excavated this season, shown in the Plan in Squares I6 and K6; (cf. Pl. VI.) The gateway of the city is just becoming visible to the north of this tower in the vicinity of the spring, and is seen in this photograph. The area enclosed would be about 5 acres.

City C. Middle Bronze Age II. (c. 1800 B.C.).

This period is marked by great expansion of the city, the defensive walls of which are found now at the foot of the slope, and consist

of a stone revetment with superimposed parapet, further protected at the outer side by a fosse. (See Pl. II, and Fig. 1.) This rampart was described in the *Q.S.*, 1930, with Plates IV and VI. The area enclosed would be about 12 acres.

City D. Late Bronze Age (c. 1600 B.C.).

The defences of the city returned at this time to the original line around the summit of the mound, consisting of an outer and inner wall twelve and six feet thick respectively, built of sun-dried bricks. The area enclosed was about six acres, but unfortunately, owing to the denudation of the site, the eastern wall is no longer traceable. It may be presumed from the contours to have followed much the same line as the earlier city wall B, which, on the western side, it actually overlies.

After the destruction of City D, the site remained unfortified until the second phase of the Early Iron Age, representing a gap of several centuries.

City E. Early Iron Age II (c. 900 B.C.).

The fortification walls of this upper level are preserved, so far as our observations go, only upon the higher ground in the north-west of the city over the remains of the tower and walls of earlier days. The wall was of brick, and it followed in that area the line of the inner wall D. The distribution of Iron Age remains suggests that the occupation at this time covered generally the same area as that of City B, extending somewhat down the slopes to the north, but not covering the full length of the mound towards the south.

The most instructive single piece of excavation was that of the eastern tower, which proved to belong to the period of City B, and to overlie houses and remains of the earlier period. The excavation of this area is not yet complete, and we defer accordingly a fuller description. At its north-eastern corner rises the mound, called aptly Spring Hill, which seems to form the acropolis of the city, and to have marked from the beginning the site of its principal residence. In the excavation of the edge of this hill we found a series of burnt store rooms (Plate VI), containing groups of vessels and charred remains, indicating a period of the destruction. It seems probable that this was the final destruction of the Bronze

Age City, for in the higher slopes the remains in the next level seem to be uniquely of the Iron Age. But it will not be possible to speak with certainty about this important piece of evidence until the excavation has proceeded further, as the heart of this mound may still contain an intermediate layer. It seems certain, however, that the groups of vessels found in the burnt store rooms will provide valuable evidence for the dating of the destruction of the city.

The discovery last year of wall D overlying wall B along the western edge of the mound demonstrated their relative dates and gave a clue as to the separate periods and purpose of these defensive systems.



FIG. 1.—SECTION OF STONE RAMPART C, SUPPORTED BY REMAINS OF BRICK WALL B, WITH SUPERIMPOSED BRICK PARAPET.

Looking around the site afresh we find much new light to be thrown upon these and other features of the city's development as the result of this year's investigation. In the north, at the spot shown in the Plan by an arrow, in C. 6, a further sector of the

stone rampart of City C was cleared down to the broken rock which formed the bottom of the fosse. As seen in Fig. 1 and Plate II, the upper part of this rampart was found to lie against the remains of a brick wall, which in construction proved to correspond very closely with that of wall B. Those who have read the very full account given by Drs. Sellin and Watzinger of their excavation will remember that they traced a wall beyond the site of the tower in Square D.5, leading towards the North. It was called

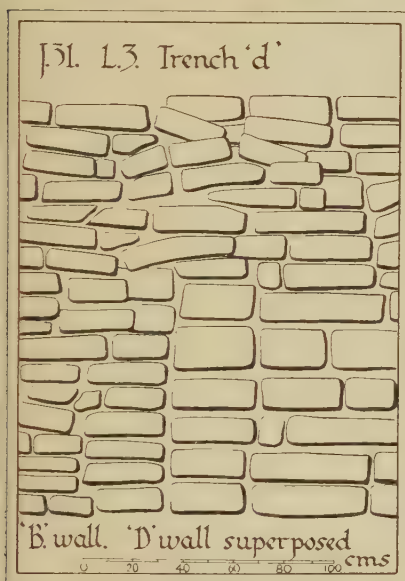


FIG. 2.—INNER FACE OF BRICK WALLS IN SQ. L.3; SHOWING PROBABLE S.W. CORNER OF CITY, AND THE JUNCTURE OF THE LATER D WALL.

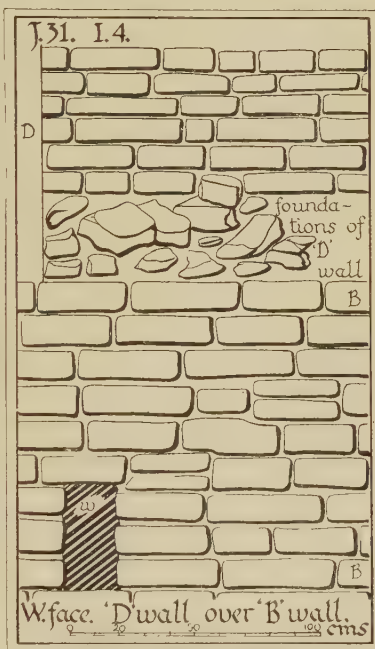


FIG. 3.—D WALL OVER B IN SQ. I.4. OUTER FACE. W=WEEP-HOLE.

by them the "purple" wall, and is marked in our Plan with an *f*. This wall is now traced down the slope almost to the outer line of rampart, where it returns towards the east; and eventually, in Square D.8, it turns once again towards the south. The northern portion of this brick wall formed a convenient backing for the upper part of the stone rampart of City C. The lower part of the stone rampart C formed a revetment against the steep

slope of the mound, which was doubtless partly cut away. The parapet of City C stood partly upon the stone revetment and partly upon the debris of wall B, as shown in Fig. 1, so that in the north the "rampart" walk lay along the debris of wall B. The south-west corner of City B seems to be indicated by a join in the construction of the walls seen in Fig. 2, indicated on the Plan in Square L.5, trench *dd*. The southern curve of the upper wall D requires further study, but it seems at present probable that at this point it met the corner of the previous fortification, over which it rose, following thereafter the earlier line all along the western side. In the same square of the plan on the outer face of the wall there may be seen the indications of a great tower, the exact dimensions of which have not been ascertained. In size and strength it was comparable to that at the north-west corner marked T, and described in the last year's report, p. 129.

Trench *e-e*, in Square K.4, provided much instructive detail described also in last year's report; but owing to the importance of this section it was re-cut, and we give a further measured drawing in Pl. IV (the work of Mr. Wm. Buffum) and a photograph, on Pl. III, which may be compared with Plates X and IX of *Q.S.*, 1930. The outer and inner faces of the lower wall B have now been clearly recovered, and the drawing shows upon the left (*b*) the ruins of a contemporary house wall, and upon the right the remains of a house wall which was presumably constructed outside the main-wall as the city expanded, to be finally enclosed by the outer surround of rampart (City C). The outer D wall is found to have slipped forward from its bed, and tilted, and it may be safely assumed that this occurred at the time the city was destroyed. It was also evident from the levels that the foundations of the outer wall of City D were originally considerably lower than those of the inner wall, an observation explained at once by the fact that this outer screen wall was built a little way down the slope of the mound, while the inner wall rested, as we have stated, upon the existing foundations of rampart B. Before passing from the subject of the outer wall, it is to be stated that various new cuttings show that this screen wall may have been originally protected at its base on the outer side by a revetment of stone work. This adds a feature of peculiar interest to the defences of the city in its last historical period, and demands further investigation.

Of special interest in Plate III. are the remains of the upper wall D, which have now been cleared of *debris*. The picture shows signs of dislocation in the masonry, not only in the subsidence of the left half of the wall *en masse*, but also the general drawing out of the bonds, while the inner face of the whole is seen to have shut-

tered down to the level of occupation. Turning to the photo on Pl. V, taken as shown by the arrow in Square H.4, we find there a more pronounced case of a collapsed house wall. The local people at once attributed this effect to earthquake shock, which they say frequently produces this complete tilting and plunging of brickwork, as well as dislocation of its bonds. Possibly to the same cause must be attributed the outward slipping and tilting of the outer wall D, in trench *e*, as described above (Pl. IV).

The super-position of walls D and B along the western side is illustrated in nearly every cutting, except where the denudation of the site has resulted in a gap in the upper wall, as represented in the plan. Fig. 3 shows the normal arrangement and construction of both walls, and the clearance

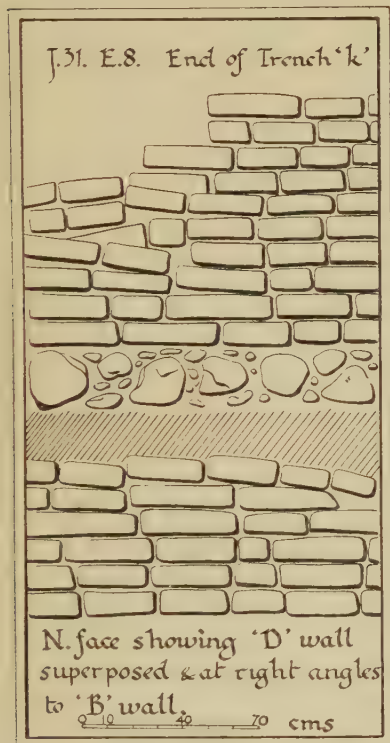


FIG. 4.—NORTH FACE OF WALL D CROSSING THE LINE OF WALL B IN THE N.E. CORNER OF THE D CITY. (SQUARE E.8 OF THE PLAN, PL. I).

of this section in Square I.4, reveals the fact that the wall B had been faced at some time with large bricks more evenly laid than those of its core, while the body of the wall was furnished with weep-holes as for drainage. Examination at various places of wall B on its inner face showed that its lower course was frequently laid as a sort of revetment against the original

slope, the wall expanding inwards as it rose (*cf.* Fig. 1) so that such weeps may have been designed to drain the interior of the city. In 1927, I laid bare a large well-masoned drain coming through the stone rampart of the acropolis of Hazor. These weeps did not, however, pass through the outer skin of wall B, which for this reason may be deemed to have been a subsequent addition.¹ In Fig. 4 the crossing of walls D and B is illustrated by a new cutting at point K in Square E.7, where reference to the plan will show the line of these two ramparts to be lying practically at right angles to one another. It is clear then that wall D is independent in line and construction from the earlier fortification of city B.

While the relations of the D and B walls and their differences are now clear, there still remain many details for investigation. In the north-west corner of the city, for example, wall B is found to be more or less continuous with the "purple" wall of Drs. Sellin and Watzinger, *f* in the Plan; and these two must have been more or less contemporary; but there is no exact evidence as yet as to which was the older. A join in the masonry of these two walls seems to be illustrated by the clearance made in Square F.5 seen in Fig. 5, while the same section shows also that an attempt had been made to weld the upper courses of these walls together. Both, moreover, overlie the previous line of City A represented by three courses of flat slab bricks at the bottom of the cutting.

The photographs on Pl. VII illustrate charred remains from a burnt house against the city wall in Square I.4, and bring us to the question of the destruction of the city in the Late Bronze Age. In this matter everything contributes to the conclusions arrived at last year. The destruction of the city walls was followed by a great conflagration plainly traceable in each house of the city that has been examined. In some cases the burnt debris is as much as two feet thick, and in the houses included charred roof beams, and palm-fibre mats or thatch, apparently from the roofs. Among the food-stuffs, an onion, a peppercorn, an olivestone, dough, bread, and dates, are to be seen in the illustration, in addition to many vessels

¹It has been suggested that sectors of the old B wall may have been partly re-used in the fortification of city D, where the two walls overlay one another. The refacing of wall B may in such places have been done by the builders of wall D (about 1600 B.C.). The suggestion certainly merits investigation.

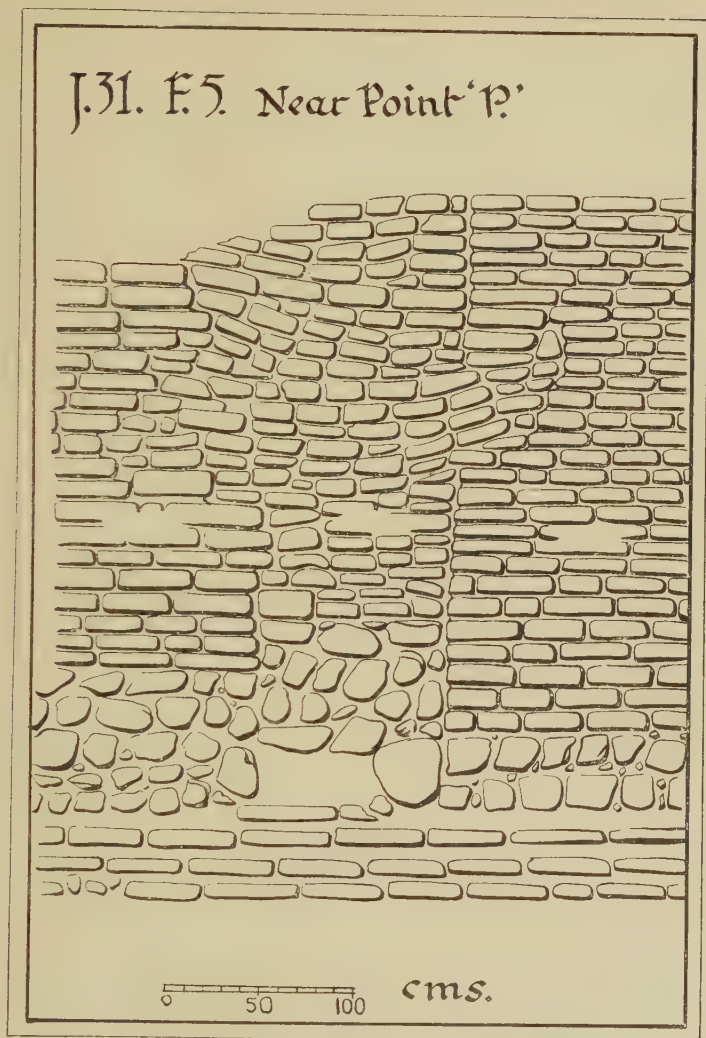


FIG. 5.—A JOIN, PATCH, AND CHANGE OF CONSTRUCTION IN THE COURSE OF B WALL, SQUARE F.5, INNER FACE. NOTE THE SLAB-BRICK WALL OF A CITY UNDERLYING THE FOUNDATIONS OF B.

well filled with grain, among which may be recognised wheat, barley, and oats. It is evident that the city was burnt while in active occupation, and it has been pointed out that the fullness of the

grain-bins rather suggests that the harvest had recently been gathered. It is not possible in this brief report to enter into details ; a full record has been kept of all observations made, and these will, it is hoped, be published when the excavations come to an end.

As for the date when the city was destroyed, nothing has been found that might contradict the estimate arrived at in the previous year, namely, the middle of the Late Bronze Age, in round figures about 1400 B.C. Our method of investigation has relied largely upon the examination of the stratified potsherds from within the city, and after washing and examining a further selection of 50,000 such fragments, the accumulation of evidence becomes enormous, in that not a single fragment has been found within the stratified area of the walled City D that must be assigned to a later date. In this connection it has to be borne in mind that much of the common pottery of the Late Bronze Age has a considerable range, so that individual types may well have persisted elsewhere into a later century ; but the average type of pottery of the last period of occupation is, in my opinion, of the first half of the Late Bronze Age. Its affinities and associations tend indeed rather towards the 16th century B.C. than the 14th. In this matter the groups of vases found in the burnt store rooms adjoining this eastern tower may prove to be a decisive factor.

The last weeks of our investigation produced a new and welcome source of evidence, which makes it unnecessary to dwell at this stage upon the evidence of the potsherds. This was the discovery of the Necropolis of the Bronze Age, in which it would appear there await excavation hundreds of tombs in an undisturbed condition. The first tomb opened proved to belong to the period of City B. It contained over five hundred objects, including some three hundred unbroken pottery vases in surprisingly fresh condition and exhibiting an amazing variety of types. These will be fully published at an early date in the *Annals of Archaeology* of the University of Liverpool. With this prospect before the future excavation of the place we may confidently expect to recover in the Necropolis the vase types of every period of the city's occupation ; and in view of the total nature of the city's destruction in the Late Bronze Age, it is probable that the sequence of tomb groups will cease or show a pronounced gap at a certain date, which will be that of the city's fall.

A comparison of the forms and types recovered in the upper strata of the city with those established by excavation of the tombs will in any case lead to a solution of the problem. We need not, therefore, dwell further upon the matter at this stage ; but we may record the fact that in addition to the Mykenæan vase found outside the precincts of the city at its northern end, as mentioned in last year's report, there has been found a second fragment this year which may possibly belong to the same age. This piece is thought by some to be the handle of a vase, but it appears very like the horn of an animal in pottery of the type found at Ras Shamra in northern Syria, in either case belonging to the Mykenæan age about 1300 B.C. It was found with some M.B.A. fragments outside city wall D in Square H.4, in an area where, unfortunately, the D wall is completely eroded, while the levelling and revetting of the mound in the Iron Age, presumably at the time of the city's reconstruction, has completely upset the strata, so that its relative level throws no further light upon the question. The discovery, however, bears further witness to a partial reoccupation of the site, as was indeed to be anticipated from its strategic position and copious water supply, but all our observations thus far tend to show that this reoccupation was subsequent to the destruction of the walled city D.

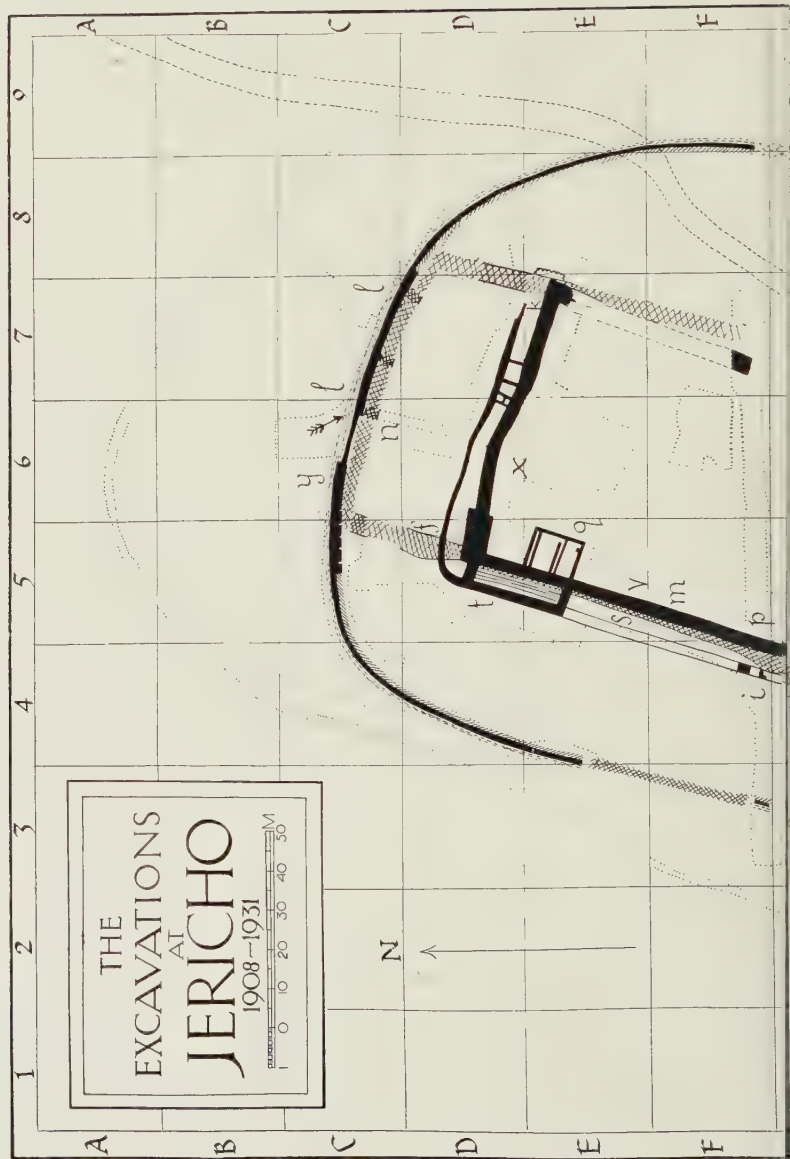
The costs of this expedition were defrayed by the generosity of Sir Charles Marston and the late Lord Melchett ; the former increased his contribution after the discovery of the necropolis, and Mr. Davies Bryan made a special gift to the funds on the occasion of his visit with Professor Sayce to see the opening of the tombs. In addition there should be thanked most warmly, for their loyal and generous collaboration, the brothers E. and D. McCown, upon whom, in addition to earlier duties, fell the severe task of registering and recording the finds within the tombs ; and Mr. William Buffum, who made a detailed study of the masonry of the walls at different epochs, from which our illustrations are derived. Mr. Burton Brown for part of the season supervised the excavation of the Early Bronze Age remains in the vicinity of the eastern tower. Boulos Eff. Arij again acted as clerk of works and supervised an area of excavation, crowning his season by locating the tombs ; while Mr. William Gad surveyed the contours and took the levels which form

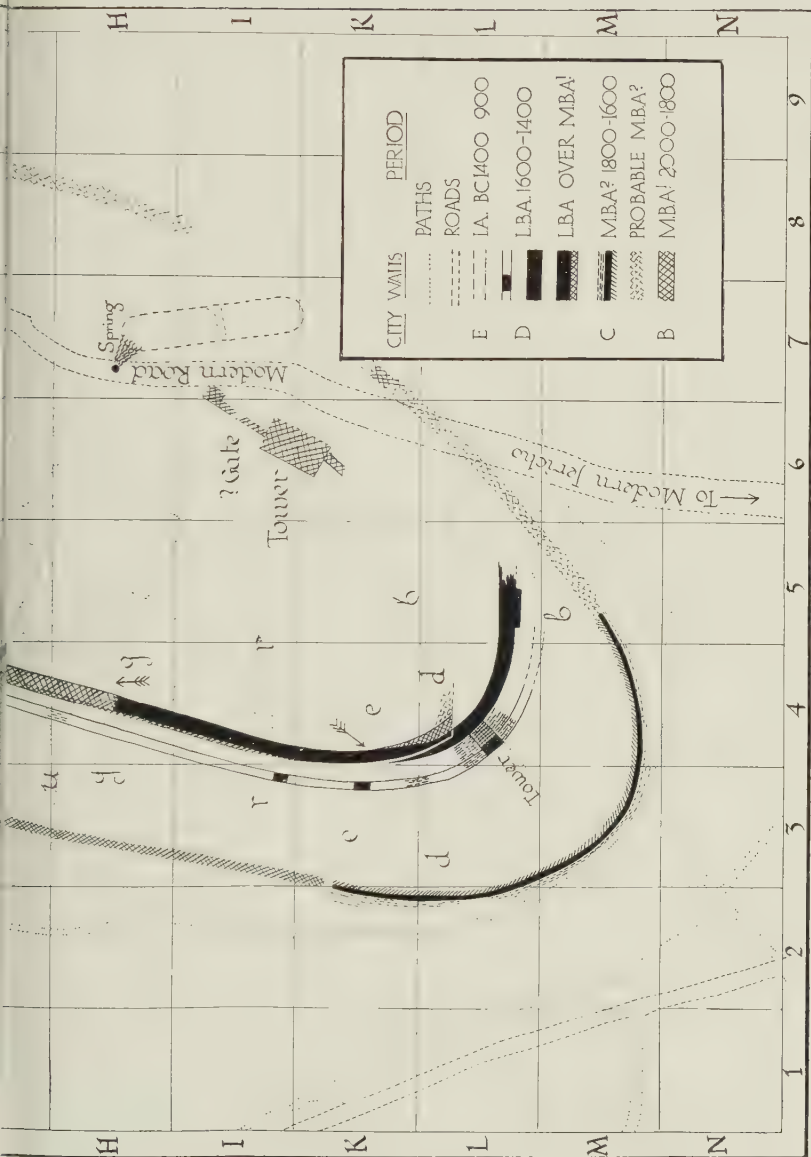
the basis of our records. Mrs. Garstang again gave unremitting supervision to the washing, sorting, and classification of the potsherds. More than 110,000 fragments have passed through her fingers in the course of these two seasons' work; and it was with no regret that she took up the task of cleaning and where necessary repairing, the series of whole vases from the tombs. The Department of Antiquities gave the fullest possible assistance and facilities, and has decided to leave open for public benefit the fine sector of the northern rampart illustrated in our photograph on Plate II. The field drawings have been prepared for publication by Miss M. Ratcliffe whose work speaks for itself.

CAPTIONS TO PLATES.

Plates

1. General Plan 1931 showing areas of excavation.
2. The NORTHERN RAMPART ('), CLEARED DOWN TO THE FOSSE, showing the parapet of brick upon a glacis of great stones (B.C. 1800). Behind the upper part of the glacis the remains of the B wall of brick (B.C. 2000).
3. Section of Wall B overlying D in Trench *ee* Square K.4 of the Plan. (View point indicated by an arrow.)
See further Fig. 4, and *cf.* Plates IX, X, of the *Q.S.* July 1930.
4. Measured drawing of B and D Walls in Section, southern face of trench *ee* Square K.3. Scale 1 : 100.
5. A house wall collapsed in the manner characteristic of earthquake effects, fallen against the outer rampart (L); position marked by an arrow in Square H.4.
6. Wall, Gateway, and Tower, of City B, in Square I.6 (from the N.E.) In the centre of the picture the wall face is marked by the man's hand, and the opening (right) through which runs a later drain, represents the gateway of City B. To the left is the north end of the great tower. Above, right, two figures mark the line of burnt store rooms with grain-jars *in situ*.
7. (a) Charred onion, peppercorn, olive stone, dough and bread, also dates and date stone, from the remains of a burnt house (in Square I.4), against the city wall D.
(b) Charred grain from the same burnt house in Square I.4.





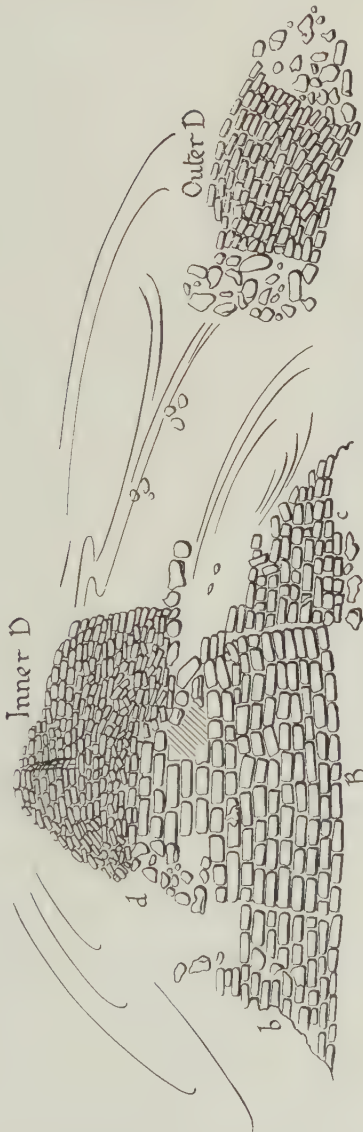


THE NORTHERN RAMPART.



SECTION OF WALL B OVERLYING D IN TRENCH E.E.

J.31. K.3. Trench 'e'



Destruction and falling of 'D' Walls.

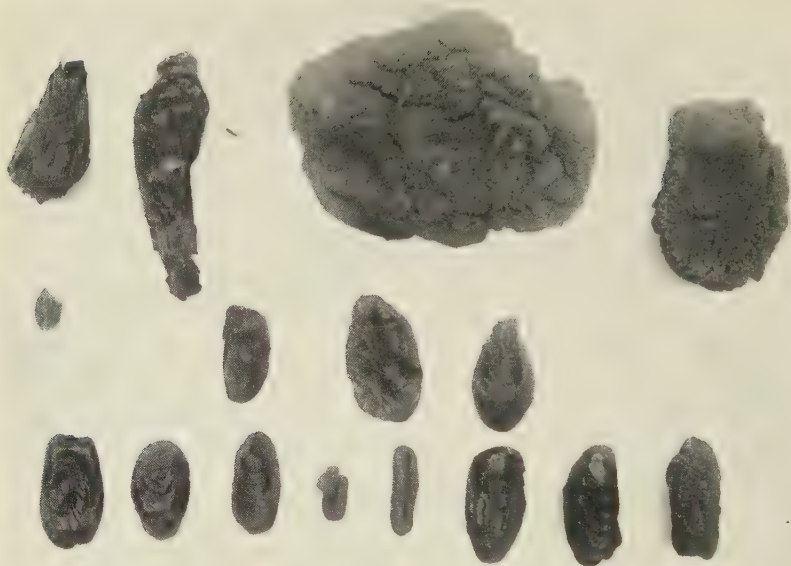
MEASURED DRAWING OF B AND D WALLS IN SECTION: SOUTH FACE OF TRENCH E.E. Sq. K.3.
[SCALE 1: 100.]



HOUSE WALL COLLAPSED, ILLUSTRATING EARTHQUAKE EFFECTS.



WALL, GATEWAY AND TOWER OF CITY B.



(a) CHARRED REMAINS OF ONION, BREAD, ETC.



(b) CHARRED GRAIN.

GEOLOGICAL RESEARCHES IN THE JUDEAN DESERT.

BY PROFESSOR J. W. GREGORY, LL.D., D.SC., F.R.S.

THE Jordan Valley and the basin of the Dead Sea have a geographical and geological interest worthy of the historic associations of Palestine. The shore of the Dead Sea is the lowest land surface on the earth and the date and mode of formation of this unique basin have been the subject of prolonged controversy. The question was raised in 1841, when the illustrious geologist, Leopold von Buch, suggested that the Jordan—Dead Sea Valley had been formed by subsidence due to faulting. That view has never been seriously questioned; but as to the nature of the earth movements that made the valley several rival explanations have been advanced. The theory that was for long generally accepted was advanced by Edward Hull in his "Memoir on the Physical Geology and Geography of Arabia Petraea, Palestine, and adjoining districts; with special reference to the Mode of Formation of the Jordan—Arabah Depression and the Dead Sea," published by the Palestine Exploration Fund in 1886. In that Memoir Hull described the Jordan valley, the basin of the Dead Sea, the Wadi Arabah and the north-eastern branch of the Red Sea as parts of one continuous valley due to faulting. His map represents the head of the Gulf of Arabah, and its continuation for six miles inland as bounded on both sides by faults; thence one great fault, which has branches to the S.E. and S.S.E., is shown continuing northward for most of the way to the Dead Sea. Further north it is doubtful whether some of the broken lines on his map are intended for "uncertain or inferential faults," or for routes. But his sections (*e.g.*, Plates, Sections 1, 2 and 5) show that he regarded parts of the valley and the Dead Sea basin as due to the beds having sunk by bending downward on the western side, and being dropped on the eastern side by a great fault.

The highlands of Judea Hull regarded as an upfold or an anticline, and the Jordan—Dead Sea valley as a down-fold or syncline that was broken off on the eastern side by a fault. Such a symmetric

valleys are well known. Many examples occur among the sea-lochs of western Scotland. The Sound of Jura, for example, has a long straight steep wall to the north-west along the coast of Jura (*cf.* Gregory, *Geographical Journal*, March, 1927, p. 204) while the opposite shore of the mainland is very irregular, being indented by long arms of the sea and projecting in ragged promontories. The contrast is due to the Sound being bounded to the N.W. by a fault, while the gentler subsidence by a down-fold on the S.E. has drowned the land and left the land valleys and ridges as the lochs and peninsulas.

The interpretation of the Jordan—Dead Sea Valley as a strip similarly sunken between a fold and a fault was not wholly original with Hull. It had been previously adopted by Lartet (1869 : *e.g.* p. 225 ; p. 221, sep. ed.) ; but Hull had more evidence in its support and was more correct as to the date of the movement. According to Lartet the valley was geologically recent, whereas Hull attributed it to events as far back as the Miocene.

The main alternative to the Hull-Lartet explanation was advanced by Oskar Fraas (1867, pp. 216-7 : *cf.* G. vom Rath, 1881, p. 15). Fraas recognised faults on the western side as well as on the eastern side of the Dead Sea. He therefore attributed the basin and the Jordan Valley to the subsidence of a strip of land between parallel faults. This view was adopted by Suess in 1891 (*Denk. Ak. Wiss.*, Vienna, vol. lviii., pp. 580, 583). If so, according to modern terminology the Jordan lies in a rift-valley.

The existence of the faults to the west of the Jordan—Dead Sea has however been denied by some members of the Geological Survey of Egypt. The existence of the faults was accepted by Blanckenhorn (1912) and his evidence appeared so clear that I adopted them (1921), and interpreted the Dead Sea and Jordan-valley as a normal rift-valley.

The third and most recent theory has been advanced by Prof. Bailey Willis, (1928 *Bull. Geol. Soc. Amer.*, vol. xxxix., pp. 490-542), the distinguished American geologist, whose work on tectonic geology has been so illuminating and his conclusions so often confirmed, that his opinion carries great weight. He holds that the earth is not contracting, but is expanding in size, so that uplifts are more prevalent than subsidences. He denies that the ocean basins and such basins as the Levant are due to the sinking of their floors. He accepts the Jordan—Dead Sea Valley as due to earth

movements, but holds that the highlands on each side have been uplifted along faults due to Judea having been pushed eastward and Transjordan westward against the block below the valley. The two highlands, according to this theory, have been raised along inclined planes and the floor of the Jordan and Dead Sea left low lying between them. He therefore calls this formation a ramp-valley and not a rift-valley.

This problem not only affects Southern Palestine, but the rest of the Great Rift Valley, including the Red Sea, the lake basins and valleys of Central and Eastern Africa as far south as Sofala, and also rift-valleys in all parts of the world.

The solution of the problem depends on the detailed accurate investigation of representative sections of these valleys and one of the most promising areas for study is the western side of the Dead Sea—Jordan Valley near Jericho. Fortunately the rocks there contain some phosphate of lime, and in order to determine whether this mineral would repay mining the area was examined by the late Dr. J. W. Evans and Dr. L. Picard on behalf of the Palestine Mining Syndicate.

Dr. Picard has now published an important monograph (Max Weg, Leipzig, 1931: pp. vii. + 108, 4 pl.) with a detailed description of the rocks and a geological map, which is reprinted here.

The map is a great advance on that of Hull. He left the age of the limestones of the area indefinite as "Cretaceo-Nummulitic," and marked them all by one colour on the map. Dr. Picard has separated the various subdivisions, and their distribution shows more clearly the structure of the country and the earth movements that have disturbed it.

The rocks of this area are of about the same age as the Chalk. Dr. Picard classifies the full succession as follows :—

Recent or Pleistocene	{ Gravels. Lisan-marl beside the Jordan.
Pleistocene or Pliocene	Oolitic limestone deposited in lakes.
Miocene—Marine beds	{ On the highlands ; not present in the Jericho district.
Eocene—Marine limestones	

Cretaceous	Danian	{ Upper Stage of lagoon deposits with pyrites and phosphate. No fossils. Lower Stage of bituminous limestone : few fossils.	
		{ Maastrichtian—400 ft. of shallow water limestone, with corals at the base, and above bitumen and phosphates.	
	Senonian	Campanian—200 ft.	{ many fossils, indicating deeper seas.
		of limestone	
	Turonian-Cenomanian	Santonian—320 ft. limestone.	
	1,000 ft. of limestone with rich varied marine fauna.		

Dr. Picard concludes that this part of Palestine has stood above sea level from the earliest geological times until the middle of the Cretaceous Period. It was then covered by the advance of the Cenomanian and Turonian sea, by which the country was deeply submerged. The sea became shallower by slow uplift of the land during the Cretaceous, until it was expelled in the Upper Danian, and replaced by almost lifeless lagoons. The sea re-invaded parts of Palestine in later times, but it did not reach the Jericho district. In the Miocene, and perhaps in the Oligocene, the country had been fractured, as it was bent upwards into a broad arch and a long strip sank between the two parallel series of N. to S. faults that formed the Jordan Dead Sea rift-valley, as the northern end of the Great Rift Valley of East Africa.

Dr. Picard's evidence appears conclusive as to the existence of the two parallel series of N. to S. faults. What he calls the "Dead Sea West fault" was a powerful fracture, with a vertical dislocation of in places at least 2,200 ft.

The question whether the faults are due to the subsidence of the valley floor or the uplift of the adjacent highlands is discussed by Dr. Picard. He rejects the ramp valley theory on three main grounds. (1) Prof. Bailey Willis suggests that the uplifts were accompanied by the intrusion of molten rock below the upraised areas. Dr. Picard sees no evidence for the existence of this igneous rock.

(2) According to the Ramp-valley hypothesis the faults are all part of one series and were approximately contemporaneous. Dr. Picard shows that they belong to three different series; the oldest are the N. to S. faults, of which one of the largest passes close to Jericho, though its course is there in places buried. The second series consists of the transverse and crescentic faults, such as that which bounds the Jebel Kuruntul, N.W. of Jericho. The third series Dr. Picard calls the Somalic Dislocations, because their general trend of N.N.E. S.S.W. is parallel to that of important faults in Somaliland. Finally the rocks were cut by minor faults and a network of joints.

The faulting has been in progress at least from the Miocene until recent times, and is probably still proceeding, as the numerous earthquakes in Palestine, some of which are powerful, are attributed to new movements on the old faults. (3) Not only are the faults of different ages and modes of origin but Dr. Picard, by an ingenious study of the joints and minor faults, shows that they were due to the rocks being torn asunder by tension and not broken by compression as they would be if due to ramp-faulting. Dr. Picard remarks (p. 95) that "real ramp-faults have therefore not yet been shown to exist in Palestine," and that he could see no evidence for them. Prof. Bailey Willis has published photographs of two localities at which he claims the occurrence of overthrust faults that he regards as representatives of his ramp-faults. One is on Mt. Carmel and the other on Mt. Gilboa. Dr. Picard has given different interpretations of both sections—of the former (el Jadshur; Jabor or Jadjur) in 1928, pp. 48-51, pl. 2, and of the latter in 1929, pp. 11-17, pl. 1. Instead of Gilboa consisting of Lower Cretaceous over Upper Cretaceous, Dr. Picard has found Nummulites in the beds, which are therefore later than Cretaceous. He has mapped them all as Eocene and says that they lie one above another in their normal order. He denies that they show any overthrusting and also the existence of any proved ramp-faults in Palestine.

Dr. Picard's map and monograph are a valuable contribution to the geology of Palestine and his new facts have a wide general bearing from their evidence that the Jordan Valley and the basin of the Dead Sea were formed as a rift-valley by the subsidence of the floor between normal faults due to the rupture of the country

along N. to S. lines during its adjustment after it had been uplifted into a broad low arch.¹

¹ Lartet, L. *Essai sur la géologie de la Palestine et des contrées avoisinantes telles que l'Égypte et l'Arabie*. Pt. I., Ann. Sci. Géol., I., pp. 5-329, pl. I-III. (1869). Pt. II., *Paléontologie*. *Ibid.*, pp. 1-94, pl. IX-XII. (1872).

Fraas, Oskar. "Geologisches aus dem Orient." *Jahreshefte Ver. vaterl. naturk. Württemberg*, Jahrg. xxiii., pp. 145-362, pl. 4-6 (1867).

Vom Rath, G. "Palästina und Libanon, Geologische Reiseskizze." *Verh. naturh. Ver. preuss. Rheinl. und Westfalens*, 1881, 48 pp.

Blanckenhorn, M. *Naturwissenschaftliche Studien am Toten Meer und im Jordantal* (1912).

Gregory, J. W. *The Rift Valleys and Geology of East Africa*. (1921).

Picard, Leo. "Zur Geologie der Kischen-Ebene." *Zeit. Deut. Pal. Ver.*, LI., pp. 5-72, pl. 1-6 (1928). "Zur Geologie der Besan-Ebene," *Ibid.*, LII., pp. 3-73, pl. 1-5 (1929).

GEOLOGICAL MAP OF THE JERICHO REGION by Dr. Leo Picard D.I.C.

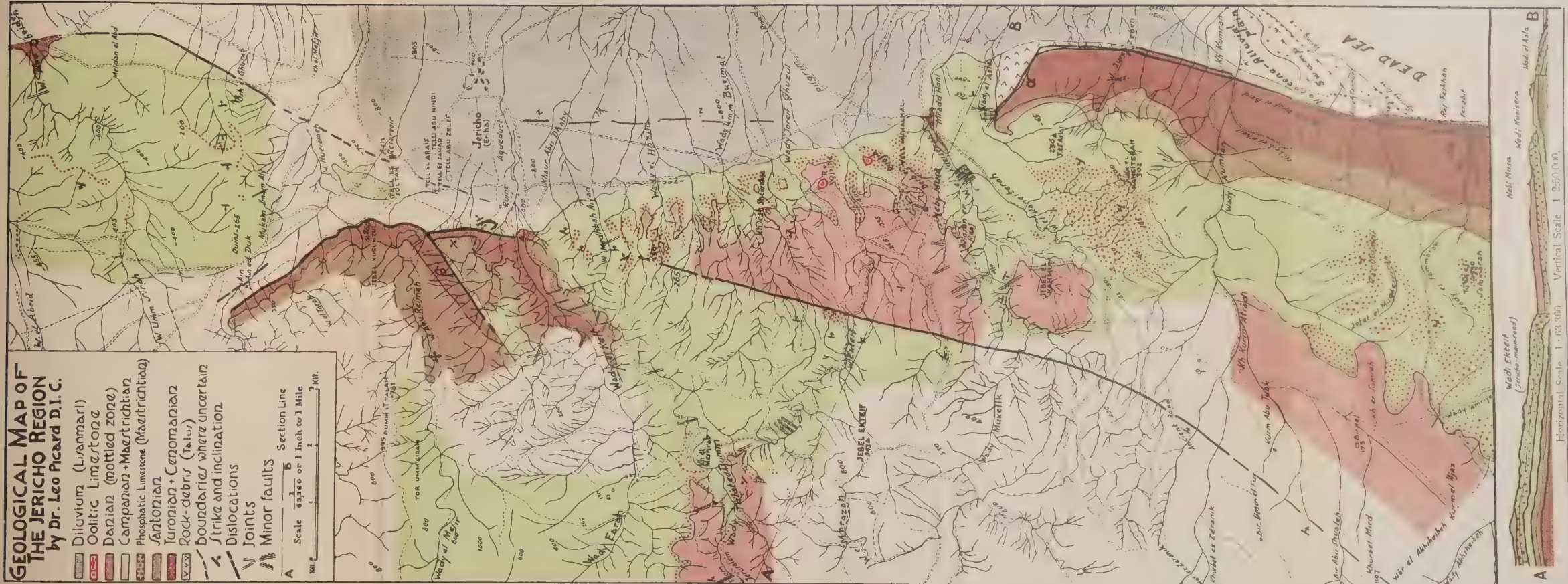
-  Diluvium (Lisan Marl)
-  Oolitic Limestone
-  Danian (mottled zone)
-  Campanian-Maestrichtian
-  Phosphatic Limestone (Maestrichtian)
-  Eocene
-  Tertiary-Cenomanian
-  Rock-debris (Talud)
-  Boundaries where uncertain
-  Strike and inclination
-  Dislocations
-  Joints
-  Minor faults

A Scale 1:50,000 or 1 inch to 1 mile

B Section Line

Kilometers 0 1 2 3

Miles 0 1 2 3



Wadi Ekeik
(Jericho-mountain)

Nebi Musa

Wadi Kharab

Wadi el Ahsa

Horizontal Scale 1:63,000 Vertical Scale 1:250,000

Zinc, Pkowsky, Jerusalem

Guthrie & Press, Jerusalem

CAPHTOR, KEFTIU, AND CAPPADOCIA.

BY G. A. WAINWRIGHT, B.Litt.

IN the present article I offer my own contribution to all that has been written about the origin of the Philistines. My apology for intruding upon this field of enquiry is that the various details seem to fit into one another and to build up a harmonious whole. The following remarks treat the subject from what seems to be a new angle, and are the result of what has come before me in the protracted study of a question of Egyptology. The two subjects are clearly allied, and may in due time prove to be really the same.¹

Through all the pages of these earlier studies flit the Philistines, and they, as I hope I have shown, were the Keftiuans.² As is well-known the Philistines were the Caphtorim,³ hence information as regards Keftiu must have a bearing on the problem of these Philistines or Caphtorim.

On the only two occasions that the Septuagint translates Caphtor and Caphtorim it does so by Καππαδοκία and Καππαδόκες.⁴ Yet the opinion that Caphtor was situated there or thereabouts has never won favour as opposed to the firmly rooted idea that Caphtor was Crete. But though this proves to have no foundation in fact, it unfortunately obtained an added respectability during the early years of this century from the proofs that were forthcoming that Crete had been an important centre of civilisation. But the attempt to elaborate the Caphtor-Crete theory entangled its adherents in ever greater difficulties. These are sufficiently evident, for example, in Dr. Hall's chapter on "The Keftians, Philistines and other peoples of the Levant" in the second volume

¹My studies are. *The Keftiu-people of the Egyptian Monuments*, published in the *Annals of Archaeology and Anthropology*, Liverpool, 1913, pp.24-83; *Keftiu* in the *Journal of Egyptian Archaeology*, XVII, pp. 26-43; and *Keftiu: Crete or Cilicia?* in the *Journal of Hellenic Studies*, LI (1931), pp. 1-38. References to these are made as *L.A.A.*, *J.E.A.* and *J.H.S.* respectively.

²*J.H.S.* pp. 10-13, 15, 16.

³Deut. ii, 23; Jeremiah xlvii, 4; Amos ix, 7: cf. also Gen. x.14, where the gloss is clearly misplaced.

⁴Deut. ii, 23; Amos ix, 7.

CAPHTOR, KEFTIU, AND CAPPADOCIA.

BY G. A. WAINWRIGHT, B.Litt.

IN the present article I offer my own contribution to all that has been written about the origin of the Philistines. My apology for intruding upon this field of enquiry is that the various details seem to fit into one another and to build up a harmonious whole. The following remarks treat the subject from what seems to be a new angle, and are the result of what has come before me in the protracted study of a question of Egyptology. The two subjects are clearly allied, and may in due time prove to be really the same.¹

Through all the pages of these earlier studies flit the Philistines, and they, as I hope I have shown, were the Keftiuans.² As is well-known the Philistines were the Caphtorim,³ hence information as regards Keftiu must have a bearing on the problem of these Philistines or Caphtorim.

On the only two occasions that the Septuagint translates Caphtor and Caphtorim it does so by *Καππαδοκία* and *Καππάδοκες*.⁴ Yet the opinion that Caphtor was situated there or thereabouts has never won favour as opposed to the firmly rooted idea that Caphtor was Crete. But though this proves to have no foundation in fact, it unfortunately obtained an added respectability during the early years of this century from the proofs that were forthcoming that Crete had been an important centre of civilisation. But the attempt to elaborate the Caphtor-Crete theory entangled its adherents in ever greater difficulties. These are sufficiently evident, for example, in Dr. Hall's chapter on "The Keftians, Philistines and other peoples of the Levant" in the second volume

¹My studies are, *The Keftiu-people of the Egyptian Monuments*, published in the *Annals of Archaeology and Anthropology*, Liverpool, 1913, pp. 24-83; *Keftiu* in the *Journal of Egyptian Archaeology*, XVII, pp. 26-43; and *Keftiu: Crete or Cilicia?* in the *Journal of Hellenic Studies*, LI (1931), pp. 1-38. References to these are made as *L.A.A.A.*, *J.E.A.* and *J.H.S.* respectively.

²*J.H.S.* pp. 10-13, 15, 16.

³Deut. ii, 23; Jeremiah xlvii, 4; Amos ix, 7; cf. also Gen. x, 14, where the gloss is clearly misplaced.

⁴Deut. ii, 23; Amos ix, 7.



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of the Cambridge Ancient History.¹ At the same time positive evidence continued to accumulate that the Philistine tribe itself and the vast majority of the Philistine confederacy were no Cretans. In Egypt we have pictures of them on the monuments of Ramesses III about 1190 B.C.² These shew them and their confederates to be dressed and armed in a style already known to belong to the mainland of Asia Minor.³

Here that other line of enquiry touches upon the question of Caphtor. It is that regarding the position of the land known to the Egyptians as Keftiu from 1600 B.C., or probably earlier, to about 1200 B.C.⁴ When Crete began to loom so large on the archaeological horizon this name was also taken as representing Crete, and the other view which considered it to be Cilicia was ignored or disparaged. The similarity of the names Keftiu and Caphtor was no doubt a predisposing cause to the ready acceptance with which this idea met.

However, since those days a great deal of new information on Keftiu has come to light. Many years ago I was able to show that by their products and dress the Keftiuans of the Egyptian monuments could be no Cretans, but should belong to a country somewhere in the neighbourhood of Cilicia.⁵ As one of their several embassies reached Egypt at the same time as another which came from Crete I drew an analogy between that representation of "The Great Ones of Keftiu and of the Isles in the midst of the Sea" of

¹Some of them are pointed out in *J.H.S.*, *passim*, more especially pp. 26, 27, 28, 30.

²The Sea Raiders of the Egyptian monuments were a congeries of tribes. One of them—the Zakkal—seems to have given its name to Ziklag. It may be that there were a few Cretans among the various Asianic tribes. If "Cherethites" means "Cretans," as seems probable, the fact that they are so regularly mentioned alongside of the Philistines implies that they are to be distinguished from the others. Their presence would account for the later worship of Zeus Cretagenes at Gaza, and the putting of the name Minos on its coinage. (B.V. Head, *Historia Numorum*, p. 805.)

³*L.A.A.A.* p. 64, note 4.

⁴The earliest mention is in a XIXth dynasty copy of a much earlier text, Gardiner, *The Admonitions of an Egyptian Sage*, p. 32. For the date of the original composition see p. 18, and for that of the extant copy see p. 3. The latest mention of Keftiu as a contemporary geographical term in the incantation *J.E.A.* p. 27. For the list of the occurrences of the name see *L.A.A.A.* pp. 78 *sqq.*

⁵*L.A.A.A.*; and now in fuller detail in *J.H.S.*

the XVth century B.C. and the common Old Testament phrase "the Kerethim and Pelethim" of some centuries later.¹

Just recently the question has become more closely defined by the discovery of what seem to be a pair of divine names in the Egyptian spell written "in the speech of Keftiu." These are Sandas, or Sandokos, and Tarku. Tarku forms part of many names from the neighbourhood of Cilicia while Sandokos' cult was peculiar to Kelenderis in Cilicia Tracheia, and Sandas was a Cilician god and founder of Tarsus.² Another step in the identification of Keftiu with Cilicia was taken when the hitherto inexplicable "names of Keftiu" of another Egyptian writing board were matched with others coming from Cilicia and its neighbourhood.³ This once more introduces the Philistines, for it has long been recognised that the Philistine name Achish was comparable to the Keftiuan 'kš of about 1500 B.C. Both of these offer ready parallels not only to the Lycaonian [Α]κκισις in the hinterland of Cilicia, but also further afield to the Trojan Ἀγχίσσης for the Septuagint spells the Philistine name Ἀγχούς, Ἀκχίς. Achish was king of Ziklag,⁴ and this seems to contain the name Zakkal which the Egyptian records give as that of one of the tribes who raided Egypt along with the Philistines, about 1190 B.C.⁵ That they settled in Palestine and founded states there, is known from the story of Wen-amon, who was at Dor and Byblos rather before 1100 B.C.⁶ At that time the Zakkal had presumably been there for nearly a hundred years, for Zakar-baal's father and grandfather had ruled there before him.⁷ Zakkal, or Zakar as it might equally well be transliterated, is often thought to be the same name as Teucer, and in later times Teukroi were priest-kings at Olba in Cilicia Tracheia. It has been suggested that their title represents the divine name Tarku, and so the native inhabitants of

¹L.A.A.A. pp. 73, 75.

²J.E.A., pp. 27-30.

³Op. cit., pp. 30-38.

⁴1 Samuel, xxvii, 5, 6. What is evidently the same name was borne by the king of Ekron in the VIIth century B.C., when Esarhaddon and Assurbanipal write it Ikausu (?). E. Schrader, *Keilinschriftliche Bibliothek*, 11, pp. 149, 241.

⁵Breasted, *Ancient Records*, iv. §§ 44, 64, 77, 79, 129, 403.

⁶Breasted, *Ancient Records*, iv, § 565 where Dor is called "a city of Theke" (Zakkal), and §§ 566, 567, where the prince of Byblos is called Zakar (Zakal)-baal. Reference will be made to this work as B, A.R.

⁷Id. op. cit. iv, §§ 575, 576.

the city as opposed to the ruling class of invaders.¹ The Teucrian city of Salamis of Cyprus is near the modern Enkomi. At the Enkomi of the Mycenæan age representations of warriors have been found whom comparison with the Egyptian monuments shew to be Philistines.²

Already in the first quarter of the XIVth century B.C. the Tell-el-Amarnah Letters shew that men from western Asia Minor were about in Syria and Palestine. Such were the Lukki,³ whose name suggests that of the Lycians, and the Sherden⁴ whose name presumably represents Sardis in Lydia.⁵ A hundred years later there were still Luka (Lycians ?) in Syria, for they were among the Hittite allies defeated by Ramesses II at Qadesh.⁶ They were still roaming the Mediterranean in 1220 B.C., when Merenptah defeated more of them who were this time allied with the Libyans.⁷ In 1287 B.C. the Hittite allies at Qadesh included not only the Lycians (?), but also the Kelekeshe,⁸ who can hardly be other than the Cilicians. This is their first appearance in history, and they come with the Derden (Dardanians ?)¹ and Kezwenen (Kizzuwadna, Cataonia?).¹⁰ Plenty of people from the west were to be found in Syria thus early. Although we are accustomed to think of the Philistines themselves as only appearing late on the scenes, this was not so. Already at the end of the M.M. iii period, say about 1600 B.C., the Phaestos Disc shews a head-dress which is apparently theirs.¹¹ Although Ramesses II does not name them among the Hittite allies at Qadesh, he shows a few men within the city who wear what seems to be the

¹*J.H.S.*, p. 14, note 63.

²*Op. cit.*, pp. 10, 13, for the Philistines there, and p. 16 for the Teucrian connection of the city.

³Knudtzon, *Die el-Amarna-Tafeln*, letter No. 38, 10.

⁴*Id. op. cit.* Nos. 81, 16; 122, 35; 123, 15. They were at Byblos, apparently in the service of Pharaoh, or Ribaddi, who was loyal to him.

⁵There are also Danuna (?), *id. op. cit.* No. 117, 92, see also *L.A.A.A.* p. 64, note 4. They do not appear again until about 1190 B.C., when Rameses III. defeated them (Denyen) among the other northerners, Breasted, *Ancient Records*, iv, §§ 64, 81, 82, 403.

⁶*B. A.R.* iii, §§ 309, 312.

⁷*B. A.R.* iii, §§ 574, 579.

⁸*Op. cit.*, iii, §§ 306, 309, 349.

⁹*B. A.R.*, iii, §§ 306, 349.

¹⁰*Op. cit.*, iii, §§ 309, 312.

¹¹Evans, *Scripta Minoa*, p. 276, No. 2, and p. 285 for the date. This is about the date of the faience from Mycenæ showing the Sherden-like helmet.

Philistine head-dress.¹ When they do come in force, in the reign of Ramesses III,² they and their confederates were dressed and armed in an Asianic manner. But the invading hordes of 1190 B.C. did not only come by sea, but like their predecessors they established themselves in Syria, for Ramesses III says "They set up a camp in one place in Amor"³. Later still there may have been Carians in Palestine, for on one occasion the routed Philistines fled to a city called Beth-car,⁴ and there were men called *Karim* in David's army,⁵ and also in the bodyguard of the later kings of Judah.⁶

It is not surprising, therefore, that, both by its own name and that of its king, one Philistine city, Ziklag, has referred us back to the coastlands of southern and western Asia Minor. But Ziklag was not the only city with these connections, for at least one other was intimately connected with this part of the world. This was Ascalon. According to a historian, stated to have been a Lydian, Mopsus, also called here "the Lydian," captured Atargatis the goddess of Ascalon, and cast her and her son into the lake where they were devoured by fishes.⁷ This story implies that Ascalon was already in existence before the arrival of Mopsus. This was correct, for at about 1375 B.C. the Tell el-Amarnah Letters often mention the name Aškaluna,⁸ and excavation shews it to have been founded earlier still, about 1800 B.C.⁹ Other sources relate how Mopsus was priest at the Lydian city of Clarus,¹⁰ whence he moved

¹Rosellini, *Monumenti storici*, pl. civ.

²B, A.R., iv, §§ 44, 64, 71, 81, 82, 129, 403.

³*Op. cit.*, iv, § 64. Amor is in Central Syria; round about Qadesh for example.

⁴I Samuel, vii, 11.

⁵II Samuel xx, 23, where the word accompanies "the Pelethites" and is altered to "Cherethites" by the "written" text of the Hebrew.

⁶II Kings xi, 4, 19, where it is translated as "captains" though the Septuagint, taking it to be a proper name, merely transliterates it.

⁷Athenæus, viii, 37, where he quotes from Xanthus the Lydian.

⁸Knudtzon, *op. cit.* Nos. 287, 14; 320, 6; 321, 6; 322, 5. Its king was a certain Widia. Ramesses II had to recapture Ascalon about 1285 B.C. (B, A.R. iii § 355), as had Merenptah about 1220 B.C. (*Id. op. cit.* § 617) and "the king of the Ascalonians" had attacked Sidon and driven out the people "the year before the fall of Troy." (Justin, xviii, iii). This restlessness is characteristic of the Sea Raiders, for the Zakkal at Dor and Byblos were still raiding about 1100 B.C. in the third generation after their establishment in Syria (Cf. p. 206, notes 5, 6, and B, A.R. iv §§, 568, 588, 590).

⁹Phythian-Adams in *Q.S. of the Pal. Explor. Fund*, 1921, p. 170.

¹⁰Strabo, C 642.

to Pamphylia, and thence to Cilicia, where he founded cities¹. Quite other evidence for this racial movement will be found on p. 215. Cilicia and Pamphylia are part of the country which I venture to think was called Keftiu by the Egyptians. The same story finds expression in the relationships of Ascalus, the eponymous hero provided for Ascalon. He was said to have been brother of Tantalus, one king of Lydia, and general of another, a certain Aciamus. Aciamus sent him into Syria where he married a wife and founded Ascalon². Moreover, Tantalus was said to have been native to, and resident at, Mount Sipylus³. This brings us back once more to the spell "in the speech of Keftiu" of 1500 B.C., for it may be that the name $Kv\beta\acute{\eta}\beta\eta$ is recognizable there⁴. If so, it will be remembered that this is a variant form of Cybele, the name of the great goddess of that district, who had her seat on Mount Sipylus and was called Sipylene. It also introduces the Sherden, for this is the country round about Sardis, a city which is supposed to preserve their name. Our first representation of them is probably to be seen on the faïence fragment from Mycenae, which shews a man wearing their very distinctive helmet. Mycenae was the chief centre of the Pelopidae, and Pelops came from Lydia or Phrygia, was son of Tantalus, and his throne was shewn on Mount Sipylus. Moreover, he was no solitary wanderer but came with his own people⁵. His arrival, therefore, seems to have been but the culmination of a long-continued racial movement. If so, the faïence fragment would be a relic of its early phases for it is probably not later than 1450 B.C., and might be as early as the XVIIth century.⁶ It is, therefore, of about the same date as the Phaestos Disc⁷ which

¹For references see Roscher, *Lexikon*, s.v. *Mopsos*, col. 3209.

²*Id. op. cit.* s.v. *Askalos*, col. 611.

³*Id. op. cit.* s.v. *Tantalos* cols. 75, 76.

⁴The spell begins $\acute{\epsilon}ntkpp$, &c., or something very like it. Mr. Gordon points out to me that, if the first division be made after the t , kpp could be taken as the next group. This might stand for the original native name which the Greeks reproduced as $Kv\beta\acute{\eta}\beta\eta$, while the $\acute{\epsilon}nt$ could represent Sandas, as I originally proposed. Mr. Gordon hopes to publish his suggestions shortly in the *Journal of Egyptian Archæology*.

⁵Roscher, *op. cit.* s.v. *Pelops*.

⁶Schuchhardt, *Schliemann's Excavations* (Sellers' trans.), Fig. 198. It comes from the Third Shaft Grave. The graves may be dated to a period beginning in M.M. iii and running from the XVIIth century to c. 1450 B.C. Evans, *The Shaft Graves and Beehive Tombs of Mycenae*, pp. 23, 90.

⁷Evans, *Scripta Minoa*, p. 285, puts it at the end of M.M. iii. It would, therefore, date to the xviii century B.C., *Camb. Anc. Hist.* ii, p. 693.

shews the head-dress like that worn later by the Philistines of the Egyptian monuments. So far as the Egyptian evidence goes the the Sherden seem to have been the most numerous and also the most prominent of the northern peoples. Not only were they at Byblos in Syria early in the XIVth century B.C., but a hundred years later Ramesses II had captured more of them and drafted them into his army.¹ Elsewhere he mentions them as if they had ships and were perhaps allied with the Libyans.² He also gives us our earliest Egyptian pictures of them.⁶ Seventy years later Merenptah found them allied with the Libyans,⁴ and after another thirty years Ramesses III was still employing them as mercenaries.⁵ He also employed a few Philistines in this capacity.⁶ In the great sea battle some of the Northerners' ships were manned by Sherden and some by Philistines,⁷ and one of the Sherden chiefs appears among the captives.⁸ This last sculpture is important, for it gives the name of this well-known type. So numerous had the Sherden become in Ramesses III's army that by the end of his reign they were settled in cities and formed one of the estates of the realm.⁹ If the Sherden really were from Sardis, they anticipated by about six hundred years the activities of their compatriots and neighbours, the Ionians and Carians, whom the Pharaohs of the XXVIth dynasty also employed as mercenaries and settled in cities, in their case Daphnae and Memphis.¹⁰ They also gave them Naukratis as a trading centre¹¹. The Sherden were, thus, widely scattered over

¹B, A.R. iii, § 307.

²Id. *op. cit.* § 491, but the passage is unfortunately damaged.

³ABU SIMBEL, Champollion, *Mons.* pl. xxviii = lowest register pl. xvii bis; LUXOR, Rosellini, *Mon. storici*, pls. 105 bottom right hand corner, and 106; ABYDOS, on the external wall, for photographs of examples see Hall, *P.S.B.A.* xxxi, pl. xxx, facing p. 232.

⁴B, A.R. iii, §§ 574, 579, 588, 601.

⁵Id. *op. cit.* iv, §§ 50, 51, 72, 397, 402, 410; *Medinet Habu* (Chicago) i, pls. 17, 18 lowest registers, 31 lowest register, 32, 34, 35 lowest register. These plates now supersede the old publications of Rosellini, *Mon. stor.* and Champollion, *Monuments*.

⁶*Medinet Habu* (Chicago) i, pls. 9 lowest reg., 17 lowest reg., 19, 24.

⁷*Op. cit.* pls. 37, 39 (= Rosellini, *Mon. storici* pl. cxxxi and Champollion, *Mons.* pl. cxxii which they now supersede). In photograph, von Bissing-Bruckmann, *Denkmäler ägyptischer Sculptur*, pls. 94 a, b.

⁸Rosellini, *op. cit.* pl. cxliii, 10 = Champ. *Mons.* pl. cciii. For the attached descriptions see B, A.R. iv, § 129.

⁹B, A.R. iv, §§ 397, 402, 410. cf. § 403.

¹⁰Herodotus, ii, 30, 154.

¹¹Id. II, 178, 179.

the Levant for a long period, being found not only in Syria, but in Egypt, Libya and apparently Greece as well. As there had been people, who were presumably from Lydia, all about in Syria ever since the early XIVth century B.C., we may well believe that at least one Philistine city in Palestine looked back to Lydia as its mother-country. Egypt shews one end of the story in considerable detail and Greek legend sketches out the other. Strabo, indeed, epitomises that end when he says that, Calchas having died at Clarus, "some of the people, who together with Mopsus crossed the Taurus, remained in Pamphylia and others were scattered in Cilicia and Syria and as far as Phœnicia."¹

A quantity of evidence has concentrated attention on Lydia as the country in which we are first able to trace the Philistines. Here let me remark that throughout this article the words Lydia and Lydians are only used geographically and in no sense racially. The racial movements of this period in the Levant are too complicated and too little known at present to admit of more than that. With this proviso let us record that the Old Testament uses a word *seren* for the "lords" of the Philistines. This has often been compared to the word well-known through the Greek as *τύραννος*. If this equation should be accepted,² it would be noteworthy that the latter is a late importation into Greek, and that the ancients considered it to be a Lydian word.³ It was also an epithet of the god Men in Lydia.⁴

Tantalus carries the question further, for his kingdom is said to have stretched as far as Mount Ida.⁵ This brings us to Thebe, where lived other Cilicians,⁶ and whence Achilles carried off the lump of "self-cast" iron. Next beyond this were Dardania and Lampsacus. At the latter the Cilician name Sandes was used,⁷

¹Strabo, C.668.

²It might, however, be a Semitic word meaning "axle-tree."

³G. Radet, *La Lydie et le monde grec*, pp. 146, 147. W. Prellwitz, *Etymologisches Wörterbuch*, 1905, p. 471, would see in it a Phrygian root. Boisacq, *Dictionnaire étymologique*, 1916, p. 992, considers this conjectural. In any case Phrygia borders on Lydia. Myres, *Who were the Greeks?* p. 118, returns to the old correlation with *κοίρανος*, equating both words with the Hittite *kuirvanas*.

⁴Roscher, *Lexikon*, s.v. *Men*, cols. 2753, 2754, also in Thasos and Attica.

⁵*Id. op. cit.*, s.v. *Tantalos*, col. 75.

⁶*Iliad*, vi, 397, 415, 416.

⁷Roscher, *op. cit.* s.v. *Sandas*, col. 330.

and Dardania was the home of Anchises, whose name is so like those of the woman of Lycaonia [A]ΚΚΙΤΙΣ, and the Philistine kings Achish and Ikausu.

The Philistines arrived in Palestine at the opening of the Iron Age, and, a hundred years before we hear of them, people from the iron-working country of Kezsweden (Kizzuwadna, Cataonia ?) had been at Qadesh.¹ It is natural to suppose, therefore, that it was the Philistine migration that brought the knowledge of the new metal. But before any of this had happened iron had already been sent as tribute to Thothmes III in the early XVth century B.C. It was sent by only one country, Tinay, and it is surely significant that this should also be the only country that sent "a *shawabty* (vessel) of the work of Keftiu."² Hence, Keftiu was already connected with iron even at this early date, and the Egyptian evidence shews this country to have been Cilicia and its neighbourhood. Each end of this district had at one time or another been famous for iron-working. On the western sidelay that city of Seleucia which in Greek times was called ἡ σιδηρᾶ,³ and at the eastern end was the country known to the Assyrians as Tabal.⁴ This would have been the Tubal-Cain of the Hebrews, "an instructor of every artificer in brass and iron."⁵ The country was round about Cataonia, whence no doubt came the iron that Tarsus (Tarshish) later exported to Tyre.⁶ Unfortunately it is not yet certain whether Cataonia was the Kizzuwadna which already exported iron in Hittite times⁷, but the fact that Luvian, the language of Cilicia, was spoken there,⁸ seems to make this probable. In the Iliad the famous lump of "self-cast" iron had belonged to Eëtion, king of those Cilicians who lived near Troy.² Cilicia and Cilicians, therefore, were intimately connected with iron-working. Keftiu had so been from a date long

¹See p. 207.

²B. A.R. ii § 537. Its situation is at present unknown, but this does not affect the argument.

³W. M. Ramsay, *The Historical Geography of Asia Minor*, p. 406; W. Smith, *Dict. of Greek and Roman Geography*, ii, s.v. *Seleucia*, p. 954.

⁴E. Schrader, *Die Keilinschriften und das Alte Testament* (1883) pp. 82 sqq.

⁵Genesis iv. 22. For the important iron mines near Sis see Garstang, *The Hittite Empire*, p. 194, Note 3.

⁶Ezekiel xxvii, 12.

⁷J.E.A. viii, pp. 45 sqq.; x, pp. 104 sqq.; xi, pp. 19-35.

⁸Forrer, *Sitzungsber. preuss. Ak. Wiss., phil.-hist. Klasse*, 1919, p. 1040.

⁹Iliad, xxiii, 826, 827. For Cilicians see vi, 396, 397, 415, 416.

preceding the time when the Iron Age broke upon those countries of the Levant, the archæology of which is known to us at present. The south coast of Asia Minor and the neighbourhood of Troy are, therefore, important for the history of the coming of iron. They are also the two regions to which we have already been referred so often in our study of the direction whence came the Philistines along with the knowledge of iron.

Not many miles from Seleucia lay two cities which interest us here. The first is Sagalassus, whose name is supposed to represent the Shekelesh, one of the tribes who raided Egypt along with the Philistines. The other is Prostanna. These cities were not far from the borders of Lycia, and Herodotus¹ describes the Lycians as wearing a cap encircled by feathers. This is the head-dress of the Philistines of the XIIth century B.C. Further, Sundwall derives the name Prostanna from two native elements *prusttâ-(a)ñna*.² In view, therefore, of all that has gone before it does not seem too fanciful to think that *prusttâ* may be the original of the Egyptian *Prsti*, *Plsti*, of the Hebrew Pelethi, Pelishti, and of the English Philistine. Or again these forms might easily have been built up of the components *pele-* and *astte-* or *ustta-*, which are quite common in Asianic names.³

Prostanna, Seleucia and Sagalassus lie at the western end of Keftiu, in the mountains between Lydia on the one hand and Pamphylia and Cilicia on the other. The Philistines, and therefore the Caphtorim, had a reputation as soothsayers.⁴ The only scrap of the Keftiuan language we possess is a spell, and Cilicia proves to have been an important home of divination.⁵ The story of Mopsus, which has already proved so helpful to our study, is once more prominent in the question of divination. In classical tradition Mopsus was a famous soothsayer of Lydia. Thence he went to Cilicia, and the other country of southern Asia Minor that was especially connected with his name was Pamphylia, *i.e.*, the coastland of Sagalassus, Seleucia and Prostanna.⁶ There was

¹vii, 92.

²Sundwall, *Die einheimischen Namen der Lykier* (published as Beiheft 11 of *Klio*, 1913), p. 187.

³*Id. op. cit.* pp. 55, 56, 177, 178, 236.

⁴Isaiah ii, 6.

⁵*J.E.A.* p. 30.

⁶See p. 208, also *J.E.A.* p. 30, and Roscher, *op. cit.* s.v.

substance in the tradition connecting Lydia with the land I believe to be Keftiu. People from Lydia had certainly got at least as far as Cabalia, where their language was still spoken in the first century A.D., though it had died out in Lydia itself.¹ Cabalia is the neighbouring country to the south and west of Prostanna, Seleucia and Sagalassus. It is also the hinterland of Pamphylia where Mopsus established himself. These Cabalian Mæonians, as they were called, formed a connecting link between Keftiu and Lydia. Not only was their equipment the same as that of the Cilicians to the eastwards,² but to the north westward similarities to Cilicia existed in Lydia. Thus, the Lydian name Sandanis and such Lydian words as *σαρδόνες*, *σάρδονες* can hardly be separated from the name of the Cilician gods Sandon (Sandas) and Sandokos.³

It is clear, therefore, that there were inhabitants of Cilicia and Lydia who were closely related; that soothsaying was common to both countries; and that Cilicia had already been a famous centre of divination under the name of Luia in Hittite times,⁴ and as Keftiu its fame had already reached Egypt by 1200 B.C. Cilicia was also a centre whence the art was disseminated at least as far as Cyprus.⁵ Furthermore, there were both Teucrians and Keftiuans in Cilicia,⁶ there were Teucrians and Philistines in Cyprus,⁷ and there were Zakkal and Caphtorim (Philistines) on the coast of Syria and Palestine.⁸ This is an interesting chain from Keftiu to Philistia, with divination prominent at both ends and also in the middle. It is possible to go further, for from Cilicia we step back to Lydia, and here divination is encountered again. In Greek tradition the most famous link was Mopsus, the priest at the Lydian city of Clarus. His proficiency in the art of soothsaying was great enough to kill through grief another seer of no mean repute who had pitted himself against him. This Mopsus is the

¹Strabo C.631.

²Herodotus vii, 77.

³*J.E.A.* p. 27, Note 6.

⁴*Op. cit.* pp. 29, 30.

⁵Tacitus, *Hist.*, II, 3.

⁶At Olba, *J.E.A.* pp. 32, 36; *J.H.S.* p. 14, Note 63; p. 16. It is possibly significant that here also we are concerned with priests.

⁷At Enkomi, the ancient Salamis, *J.H.S.* pp. 10, 12, 13, 16.

⁸See p. 205 and n. 2, also *J.H.S.*

man who is found again at the other end of the chain, in Philistia, where Ascalon was especially the scene of his exploits. Suitably to his calling as a priest, and reputation as a seer, his activities were religious, for, having conquered the place, he cast the native goddess (or queen) Atargatis and her son into the sacred lake.¹

With such affinities it is no wonder that the Philistines had a reputation for divination, and in its turn, this reputation supports the belief that they came from the coastlands of Asia Minor about Lydia and Pamphylia and Cilicia.² In other words the Caphtorim came from Keftiu, which must, therefore, have been Caphtor. In view of the Caphtorim's connection with Lydia and the Keftiuans' connections with it and the Troad, we cannot refuse at present to include these districts under the names Caphtor and even Keftiu. It is, however, hardly to be supposed that before the time of Ramesses III the Egyptians knew much, or indeed anything, of these remote extensions of the land of Keftiu. As is well-known the coastlands of southern and western Asia Minor are quite distinct from the central plateau and form a world of their own.³ It, thus, becomes apparent that Caphtor represents those quite definite entities, the coastlands of southern and western Asia Minor.

The Philistines were "the Caphtorims which came forth out of Caphtor," and their homeland is described as 'i.⁴ This is usually thought to mean "the isle" of Caphtor, but it may equally well mean "the coasts" or "borders" of Caphtor. For, Isaiah uses the word 'i of Palestine,⁵ which was no island but a country on the

¹Athenaeus, viii, 37.

²Lydia was evidently a stronghold of soothsaying, for a most famous nation of augurs was believed by all classical writers to have come from there. These people were the Etruscans whom Herodotus (i, 94) actually brings from Smyrna. Smyrna is not far removed from the tales of the Philistine origins, for its foundation is variously ascribed to Tantalus, who was brother of Ascalus (Roscher, *op. cit.* *Tantalos*, col. 76) or to people from Colophon (Hdts, i, 16, 150, Strabo, C. 634). Colophon itself was said to have been founded by Mopsus, and Mopsus is sometimes called the "Colophonian." (For references see Roscher, *op. cit.* *Mopsos*, col. 3208). Smyrna is also in the neighbourhood of Mopsus' own city of Clarus. It should not be forgotten that one of the tribes who attacked Egypt both with the Philistines and again with the Libyans was the Tursha or Teresh. The comparison of their name with Tyrrh-, Turs-, Etruscan, is unavoidable and has often been made. Similarly their personal name Tarquin is suspiciously like the Keftiuan divine name of Tarku, Tarhun.

³See for instance *Cambridge Ancient History*, ii, pp. 2-6.

⁴Jeremiah xlvii, 4.

⁵xx, 6.

seaboard of a continent. This expression would, therefore, be perfectly proper to our region of Asia Minor.

In this respect another passage of the Old Testament is of interest. It gives a list of countries, Tarshish, Pul, Lud, Tubal and Javan.¹ With the exception of Pul, which is unknown, these countries are situated within the area I would call Caphtor or Keftiu. It is significant, therefore, that appended to them are "the isles afar off." Here again the coastlands of Asia Minor are named in company with the isles, as I would maintain they are in the Old Testament expression Kerethim (Cretans) and Pelethim, and in Rekhmirê's inscription of the XVth century B.C., where he groups together "The Great Ones of Keftiu and of the Isles in the midst of the Sea."²

The Asianic situation of Caphtor brings us back to the point whence the discussion started. It was that the only translation of Caphtor and Caphtorim that the Septuagint gives is *Καππαδοκία* and *Καππαδοκες*. Although this has hardly received consideration in view of the prevailing idea that Caphtor was Crete, yet it now begins to appear important. In fact the Caphtorim and their culture are found all round about the frontiers of Cappadocia. Not only so, but a new Egyptian picture of the XVth century B.C. shews a man labelled "Keftiu" with many striking resemblances to the Hittite king who visited Ramesses II in the XIIIth century B.C., and also to figures at Ivriz and Bor.³ Patterns for the dress materials of other Keftiuans are also found at each of these places.⁴ Ivriz and Bor are just over the Taurus Mountains from Tarsus in Cilicia, and are, therefore, actually in Cappadocia itself. Other Keftiuan dress patterns and the new Keftiuan's skull cap occur at Boghaz-Keui itself,⁵ which is in the heart of Cappadocia. The translators were, therefore, not so very far wrong when they gave Cappadocia as the equivalent of Caphtor.

Hence, in conclusion, it is not out of place to draw attention to the fact that the names Caphtor, Keftiu, Cappadocia, only differ from each other in the endings. The main part of each consists of *k*, *f(p)*, *t(d)*.

¹Isaiah lxvi, 19.

²*L.A.A.A.* pp. 35, and 80 No. 10; *J.H.S.* p. 4.

³*J.H.S.* pp. 24, 25.

⁴*Op. cit.* p. 20.

⁵*Op. cit.* pp. 20, 25.

FUNERARY TABLET OF UZZIAH, KING OF JUDAH.¹

BY DR. E. L. SUKENIK, *Hebrew University, JERUSALEM.*

IN the Russian Orthodox Eleona-Church on the Mt. of Olives there is a small museum containing antiquities collected by the Archimandrite Antonin,² former head of the Russian Ecclesiastical Mission in Palestine. While examining the collection on the 9th February, I found among other inscribed slabs an Aramaic inscription of unusual appearance and text.³

It is a slab of hard bright limestone, 35 cms. long, 34 cms. wide, and 6 cms. thick. As can be seen on Pl. I, it is in almost perfect condition, save for slight breaks on the surface and on the edges of the tablet. The inscription is set in a bevelled frame, 6 mms. high. The frame consists of a smooth outer border, $3\frac{1}{2}$ -4 cms. in width, and of an inner Lesbian cyma, approximately 4 cms. in width (Pl. II). Back and sides of the tablet are only roughly dressed.

The inscription contains four lines of text, the letters are deeply and well cut, being on the average approximately 2 cms. high. The lines are 16-17 cms. long. The words are separated by small spaces. The letters are quite clear, and there is no doubt as to how they should be read. Only the second letter from the left in the first line was apt to give rise to doubt as to whether it should be read א or ל. From the context, however, it is clearly a א. The exceptional length of this letter is easily explained by the fact of its having been joined on to the final stroke of the preceding letter.

The character of the script closely resembles that engraved or scratched on ossuaries. The resemblance is not confined merely to shape, but is equally noticeable in the triangular apices adorning the upper strokes of the letters א, ה, כ, ד, נ and ט, the only difference being that in the superficially engraved letters on the ossuaries the

¹ Abridged from the writer's article on the subject, published in *Tarbiz*, vol. II, 2, the Quarterly for Humanities published by the Hebrew University Press, Jerusalem. The Editor of *Tarbiz*, Prof. J. N. Epstein, was kind enough to add a few philological notes, which are incorporated in this abridgement.

² Archimandrite Antonin came to Palestine in 1865, and served as head of the Russian Ecclesiastical Mission till his death in 1894.

³ I am grateful to the present Board of the Mission for their kind permission to examine and eventually to publish inscriptions from their collection.

triangles are marked in outline, whereas on the tablet they are set out in full. Here, as well as on ossuaries, we find the same letters differently shaped in one word or in one inscription, *cf.* e. g., the form of the letter ה which in the first two lines has the left vertical stroke separated from the upper stroke, whereas in the third line both strokes are joined, or the two shapes of the מ, lines 2 and 3, In lines 2 and 4 we find the *mem finale* in the middle of the word, just as in some texts on ossuaries, e.g. in the name of מתיה on an ossuary I discovered in the Kidron Valley. (Pl. III, 1.)

The inscription runs as follows :

טמי עוויה	(2)	לכה התית	(1)
ולאלמפתח	(4)	מלך יהודה	(3)

The bones of Uzziah, King of Judah, were brought hither ; not to be opened.

Line 1. לכה "hither", התית from the root אָתָא, third person feminine *hof'al*, התית = הִתִּית = הִיִּיתָ, Daniel vi., 18. If the verb precedes the subject, the former appears as a rule in the singular, even if the subject is in the plural.

Line 2. טמי in the Midrash טְמִיָּה : feminine plural of אִטְמָא :

Line 4. ולאלמפתח This phrase was first found on one of the ossuaries in a Jewish tomb-cave discovered some years ago near the Greek Colony in Jerusalem¹ (Pl. III, 2). There are two inscriptions on this ossuary. The inscription on one of the long sides reads .

דוסתס אבונה ולאלמפתח and the one on the lid אבא דוסתס. The last eight letters in that inscription as well as in this are written without intervening spaces. Mr. Avinoam Yellin, Jerusalem, suggested that this last word should be read למפתח.² Seeing that at the time when ossuaries were used in Jewish burials bones of several persons were occasionally collected in one ossuary, such a prohibition did not seem to fit in well with Jewish funerary

¹ E. L. Sukenik, "A Jewish Hypogeum near Jerusalem," *Journal of the Palestine Oriental Society*, Vol. VIII, pp. 113 sqq.

² A. Yellin, "On the Newly Discovered Jewish Ossuary Inscriptions," *ib.*, Vol. IX, pp. 44 sqq.

rites. Consequently I have tried to find a different interpretation for this word.¹ The phrase repeated in our inscription confirms the interpretation given by Mr. Yellin. In both inscriptions the words *וְלֹא לְבִיטָהּ* written in one, show that they used not to be separated in ordinary script.

In II Kings xv., 1-7, very little is said about Uzziah, King so Judah, called there Azariah. The short narrative of his reign end with the words: "So Azariah slept with his father; and they buried him with his father in the city of David." On the other hand, the author of II Chronicles xxvi. writes very fully about the heroic deeds of this King in his fight against the neighbours of Israel and his attempts to develop the land.

The Chronicle explains in detail why Uzziah became a leper and where he was buried: "So Uzziah slept with his father, and they buried him with his father in the field of the burial which belonged to the Kings; for they said: He is a leper."

From this last passage it becomes evident that Uzziah was not buried in the sepulchre of the Davidic Kings. Quite possibly he was buried outside the City of David. Our inscription proves that the tomb of this King was cleared; on the other hand, it is well known that the tombs of the Davidic Kings were never cleared. The correct tradition is likely to have been transmitted in the Book of Chronicles, and although this late description cannot reveal anything about the original tomb of Uzziah, popular tradition in the days of the Second Temple seems to have had it that Uzziah was buried outside the sepulchre of the Davidic Kings.

This tablet is, therefore, the titulus placed on the tomb of Uzziah's bones, once they were cleared from their original burial place. With regard to tituli, we read in the Mishnah²: "On the first day of Adar the month of warnings are heralded from Jerusalem concerning Shekalim and Kelayim; on the fifteenth day of that month the Book of Esther is read in the fortified cities, etc. . . . Public affairs are again taken up; at the same time, graves are marked with lime, etc." (*Shequlim*, I., 1.) In another passage we

¹ Sukenik, "Additional Note on a Jewish Hypogeum near Jerusalem," *ib.*, pp. 45 sqq. Cf. also Klein, "Die neuentdeckten jüdischen Ossuarinschriften," *ib.*, p. 100 sq.

² Rodkinson's translation.

read : " Dry land may be irrigated during the middle days and also during the Sabbatical year, etc. . . . In short, it is allowed to do whatever the exigencies of the public (service) require. Tombs may be marked, etc." (*Mo'ed qatan*, I., 1.) In the opinion of R. Simeon b. Pazi the verse : " And the passengers that pass through the land, when any seeth a man's bone, then shall he set up a sign by it " (Ez. xxxix., 15), is an indication that the Bible approved of the erecting of tomb-stones.

One point in this inscription remains to be explained, a rather important point at that, namely, its genuineness. Every archaeological object not discovered in the course of regular excavations and of unknown provenance, is a priori suspect. This inscription, too, the provenance of which is unknown to us, cannot escape suspicion. A scholar in Jerusalem, to whom I showed a photograph of the tablet, exclaimed : " It is too beautiful ! " And even though I do not think that " too beautiful " is a criterion on the strength of which the genuineness of an archaeological object or of an ancient inscription can be judged, I do not feel justified in ignoring this point altogether. I think the object genuine on the following grounds :

1. As we have seen, the script corresponds exactly to the script on ossuaries. Every single letter in this inscription can be found in an identical form on genuine ossuaries. Among the letters some have their parallels on the ossuaries discovered after the War, *i.e.* a long time after the discovery of this inscription.

2. The correct Aramaic language, in archaic style, in which this inscription was written.

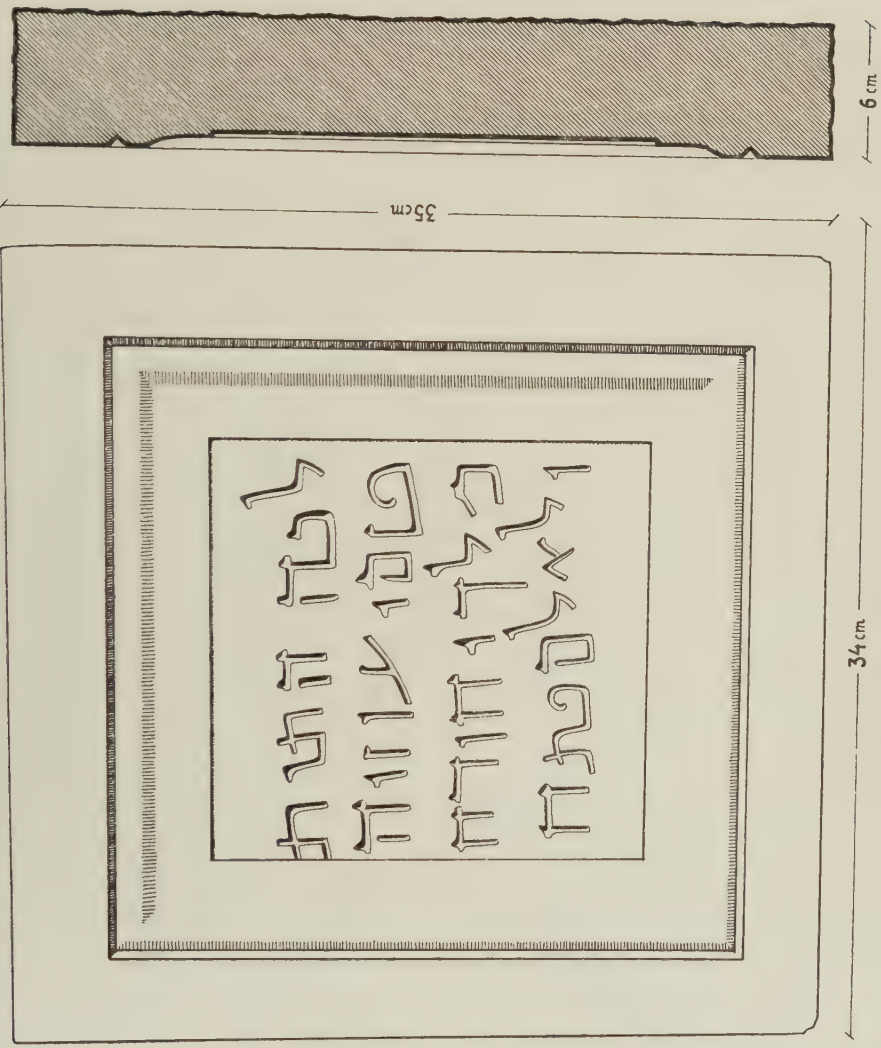
3. The phrase forbidding the tomb to be opened was found only a few years ago on an ossuary. A forger would have taken care not to introduce new forms. The extraordinary similarity of these two inscriptions should be emphasised. They differ only with regard to the letter *mem*, which in itself is not of great significance, since we have found another form of the same letter in the same inscription. It is quite possible that both inscriptions are the work of one man.

4. Although we are poor in point of Aramaic inscriptions of that period, we can mention the fragment of an inscription discovered by de Saulcy¹, about 70 years ago, in his excavations at the Triple

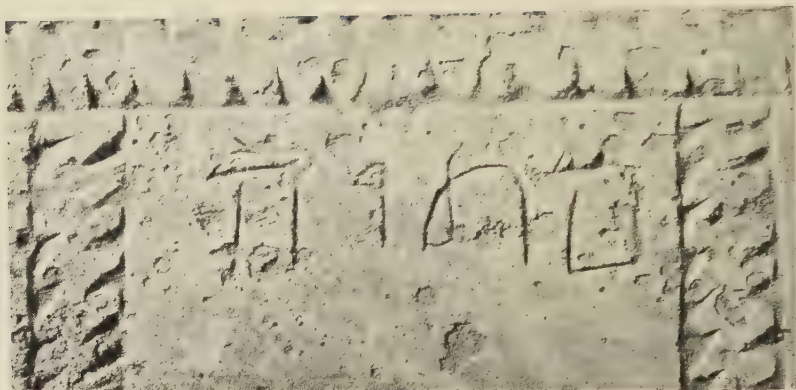
¹ F. de Saulcy, *Voyage en Terre Sainte*, Paris, 1865, p. 12, " Fouilles enterprises au Sud du Haram-ech-Cherif au pied de la triple porte murée."



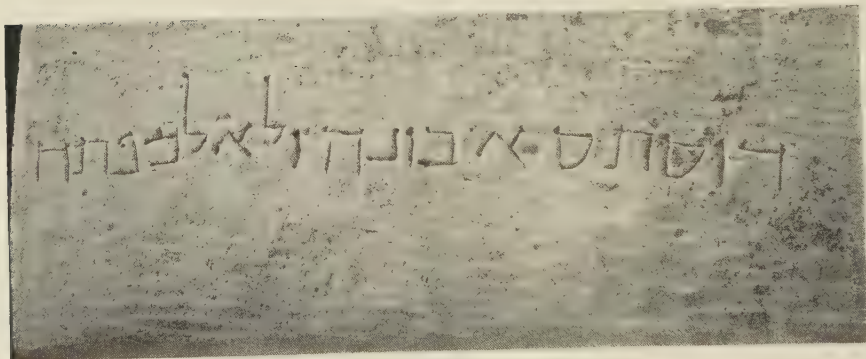
1. THE "UZZIAH" TABLET.



2. DRAWING OF THE TABLET.



1. "MATTHIAH."



2. FROM A TOMB-CAVE VALLEY.



3.

Gate of the Temple enclosure (Pl. III, 3). This inscription absolutely resembles our text, as far as the shape of letters is concerned. De Saulcy thought that it is a fragment of the one that warned the Gentiles not to enter the Temple area. The Greek version was found, as is well known, by Clermont-Ganneau in one of the houses near the Temple area. The very fragmentary condition of the stone does not allow the reconstruction of any suitable text, but the second line may possibly contain the words *יְהוָה לְאֱלֹהֵינוּ*. In any case, we are dealing here with an inscription cut in a slab of stone which came to light in the course of systematic excavations, and is similar in script and shape of letters to that of the funeral tablet of Uzziah.

5. The dressing of the stone is absolutely similar to the dressing of walls of ossuaries made of hard stone, as they are sometimes found in Jewish tomb-caves. The bevelled frame enclosing the inscription can be found on some ossuaries, and also on the fragment of the stone sarcophagus of that period, discovered before the War in the excavation of the Augustin Fathers in St. Pierre en Gallicante.¹ The inscription of the Synagogue of the Libertines, giving the name of Theodotios, discovered by Weil on the Mount of Ophel before the War, has also a frame, although a different one.

6. Finally, a fact insignificant in itself may prove that we are not dealing here with a fake made on purpose. Seeing that the inscription was left for a long time, approximately 40 years, in one of the rooms of the Russian Church without anybody paying the slightest attention to it, it is clearly proved that those who discovered it, or sold it to the Russians, did not know its value. A forger would have stressed the importance of the inscription to the prospective buyer.

It is a pity that we know nothing about the provenance of the stone. Possibly more important tombs could be found in that place. The Archimandrite Hieronimos told me that the notes made by the Archimandrite Antonin were handed over to the Holy Synod in Russia, and after the Bolshevik revolution became the property of the State Library. Perhaps one day we shall succeed in learning more details concerning this discovery.

¹ Germer-Durand, "La maison de Caïphe et l'église Saint-Pierre à Jérusalem." *Rev. Bib.*, 1914, Planche XII, 2.

REVIEWS AND NOTICES OF PUBLICATIONS.

The Structure and Procedure of Cadastral Survey in Palestine. By Major C. E. Ley, O.B.E., late R.E. Published by direction of the Palestine Government, Printing and Stationery Office, Jerusalem ; 39 pages, with diagrams ; price 150 mils.

A cadastral survey has, as its main purpose, the delineation, on paper, of property boundaries. Such a survey is an indispensable adjunct to land registration ; and land registration defines authoritatively the ownership of properties, "together with any secondary rights affecting" these properties—as the report under review remarks. Now, during the last ten years the cadastral survey and land registration of Palestine have been in progress, and this Report is to be welcomed as giving, for the first time, a fairly complete account of the special methods which have been evolved in that country. The Report rightly avoids the detailed description of well known survey methods.

The whole area of Palestine may be taken as about ten thousand square miles, of which the southern half is tribal land and desert, and this has been omitted from the present cadastral programme. Of the northern half, the limestone hills of Judea account for more than 3,400 square miles. Of the remainder, only some 2,500 square miles are cultivable, an area slightly less than that of Devonshire (2,611 square miles). "Of this by far the most valuable portion from an agricultural point of view, is to be found in the plain lands and the Beisan plateau."

Major Ley remarks that "the main difficulty of the cadastral operation has lain in the fact that property generally is not visibly defined, and that much of it is held in shares and cultivated under a system of temporary allotments, which results in periodic change of form. The peculiarity is perhaps that of a backward and ill-watered country, occupied from antiquity by a peasantry to whom little or no inducement to agricultural development has been held out." He points out that immediately around a typical Arab village of the plains will usually be found a Hawakir area, that is, a belt of fenced orchards and gardens where the more valuable

crops are cultivated and protected ; " beyond this often exists an irregular belt of land in an intermediate stage of development, which though held in permanent parcels by individuals is partly or wholly undefined, and from thence to the village boundary frequently stretch blocks of open undefined lands held collectively by the villagers, or by main sections thereof, and cultivated for cereals or used as grazing lands under a system of temporary allotments. The individually-held lands comprising the first two of these classes are generally known as Mafruz or divided lands, the temporarily-allotted but collectively owned lands of the last class as Mash'a, or undivided lands held in shares."

The greater part of the Report describes in considerable detail the cadastral methods that have been adopted as the result of ten year's experience. These methods will not find an exact counterpart anywhere else in the world, but they seem to be well adapted to the solution of the special problems presented by the conditions of Palestine. The Topo-cadastral map on the scale of 1 : 20,000, with which many of us are familiar, may be described as a by-product of the cadastral survey, but it provides a basis also for the organisation of the cadastral survey, and furnishes a fiscal map and data for an agricultural census.

The report mentions the difficulties resulting from the existence of cactus hedges, which in most cases are not trimmed, but allowed to spread. It describes the methods used in surveying the mud-brick Arab villages ; these have to be surveyed, by chain, over the " flat but highly irregular roofs." It was found that in the older parts of some of the ancient towns, such as Jaffa, Nablus and Hebron, the difficulties were increased by haphazard, upward expansion, " converting narrow alleys into steep covered passages or tunnels," with properties overlapping. To all these difficulties must be added the necessity of observing Moslem customs. So it will be seen that the cadastral surveyors have their work cut out for them, especially in the towns.

The Survey has three main classes of land to deal with, outside the towns and villages. These are : The Defined Mafruz, that is divided land of which the property boundaries are defined ; The Undefined Mafruz, that is, divided land of which the parcels are

undefined ; and Masha's lands, or undivided lands held in shares. The procedure in the case of the first two categories presents no great difficulties, and, with regard to the second, namely, the Undefined Mafruz, the differences are investigated with the owners, and any disputes are recorded, and decided by Settlement Officers.

But the survey of Masha's lands is a most complicated matter. These lands, according to this report, are estimated to cover about 45 per cent. of the cultivable land in the country, "and the Masha's system is generally regarded as the principal stumbling-block to the progress of land-development." In principle, therefore, it has been decided that these lands must be partitioned ; that is, the lands must be divided and the parcels so formed must be handed over to individual proprietors. So the share rights have first to be converted into parcels of land on paper, and then these parcels have to be marked out on the ground. The shareholders may partition any fiscal block by agreement amongst themselves. If the shareholders do not agree amongst themselves, then the Government partitions the land for them. Some fifteen pages of the report are devoted to a description of the various methods of partitioning, but the description is not easy to follow, probably from the nature of the case. Evidently much time and thought have been spent in elaborating the system. It would take far too much space to attempt to give an abstract of the procedure on these pages ; anyone who is curious about the matter may be referred to the report itself, which gives the impression of a very thorough bit of work.

C. F. C.

Publications of the Palestinian Section of the Museum of the University of Pennsylvania : Vol. i. : *The Topography and History of Beth-Shan*, by Alan Rowe. Vol. ii. : *The Four Canaanite Temples of Beth-Shan*, Part ii. : *The Pottery*, by G. M. FitzGerald. (Univ. Press, Pennsylvania ; Humphrey Milford : 1930).

The past decade in Palestinian archæology has been conspicuous for the excavations at Beth-Shan under the auspices of the University Museum, Pennsylvania. Inaugurated in 1921 under the direction of Dr. Clarence Fisher, continued by Mr. Alan Rowe, and still being conducted by Mr. FitzGerald, the work has been

distinguished by its remarkable success and, no less, by the generosity with which the many important and striking discoveries have been published far and wide without delay. It has been possible to follow the undertaking season by season, with the result that thanks to Beth-Shan, Byblus and other sites, Palestinian archaeology has passed into a new era, which—it may be added—shows itself also in the publication of more or less general and popular books on the subject, some of which have to be noticed in the following pages.

Mr. Rowe's volume, profusely illustrated with some sixty plates, deals briefly with the topography of the site, and fully with the history of the various levels, collecting, supplementing and superseding the facts, which have, in some measure, been made known already to readers of the *Q.S.* There are revised translations of the steles of Seti I and of Rameses II, and Mr. Rowe reminds us that the latter does not contain—as newspaper reports had stated—any reference to the building of the city of Rameses (Ex. i. 11). The Egyptian inscription on the stele of the goddess Antit or Anath is also revised (p. 32 *sq.*), and is now read “an offering which the king gives to Antit that she may give life, etc.” (see my *Rel. of Pal. in the Light of Archaeology*, p. 105 n. 2). With the intricacies of Hebrew history Mr. Rowe was not called upon to deal. It is, however, interesting to observe that, on archaeological grounds, we may conclude that the city was completely under Egyptian control to the time of Rameses III. After his death (in 1167) the Mediterranean mercenary troops, who, for two hundred years or more, had been employed in it, now perhaps took possession of the citadel for themselves; and later (? about 1080) they amalgamated with the incoming Philistines and others against whom they had already fought. Apropos of the kindly interest shown by the men of Jabesh-Gilead in the disposal of the body of Saul, which had been exposed in Beth-Shan, Mr. Rowe points out that Saul had previously delivered their town from the Ammonite Nahash, whose name (“serpent”) curiously recalls the old Mesopotamian serpent-deity (Shakhan) who seems to have given his name to Beth-Shan (pp. 1 n. 5, 41).

Mr. FitzGerald's volume belongs to Vol. ii of the whole, and will be preceded by Part I, dealing with the Beth-Shan temples of Rameses II, Set I and Amenophis III (by Mr. Rowe). It covers the ordinary pottery found during the excavations of 1925/6, but

does not include the cult—objects, kernoi, etc., which belong properly to Mr. Rowe's forthcoming discussion of the Canaanite temples. The pottery is classified according to the four main levels in which it was found: (a) Amenophis III and earlier: (b) Early and late Seti levels. (c) Rameses II and (d) later levels—eleven plates. In all about 340-50 specimen-types are described and illustrated, and there is a preliminary account of some of the more characteristic features. The influence of the Aegean may be specially mentioned. The Director is to be thanked for making this independent volume on the pottery accessible even before Part II is published, and Mr. FitzGerald is to be congratulated on a careful piece of work which will be welcomed by the "ceramists."

The Land of Troy and Tarsus, by J. E. Wetherell. (Rel. Tract Society.)

This book may be described as a collection of chatty and eminently readable sketches covering the history of Anatolia from the story of Boghaz-keui to that of Angora and Mustapha Kemal. Argonauts and Amazons, Hero and Leander, Cræsus, Xerxes, Diana of the Ephesians, Mithridates, Lucullus, Pompey, Cleopatra, St. Paul, Crusaders and, finally, Turks, follow in quick succession; and though the sketches are slight, the reader is conducted pleasantly through the ages, and sixteen illustrations help him to make the passage from the days of the old Hittite empire to the recent abolition of the Caliphate.

De Weg der Menschheid; 1, Palestina, by Dr. Franz M. Th. Böhl. (Amsterdam.)

To this Dutch series of monographs on art, history and religion, Prof. Böhl, of Leiden, a well-known Orientalist and expert in the ancient history and archæology of Palestine, contributes a volume on "Palestine in the light of recent excavation and research." A tasteful volume, it gives a rapid survey of the history, the older and more recent excavations, and what is called a "biblical-archæological journey," that is to say, a running account of archæological discovery in its bearing upon the history of Palestine from the pre-historic cave of Tabgha to the Crusaders. The book is distinguished by its wide scholarship, the large amount of information that is packed away in it, and the series of over 80 excellent photo-

graphs of sites. It is undoubtedly one of the best compact little introductory books of its kind, though it is to be feared that the number of English readers who can enjoy it as it deserves will be limited owing to linguistic difficulties.

Geschichte des Volkes Israel, by Anton Jirku. (Quelle and Meyer, Leipzig. 7.40 m.)

The Breslau Professor, who has done much work on the Old Testament background, here publishes a book intended in the first instance for students. It is a well-documented study from the earliest time to the destruction of Jerusalem by Nebuchadrezzar II (587 B.C.), and with its notes and bibliographical and other references, it will be welcome to students of the Old Testament. As the date of the Exodus is now the centre of renewed discussion, it may be noticed that while Prof. Böhl thinks that the Israelites entered Canaan in two sections, before 1430 and before 1200, Prof. Jirku holds that Rameses II was the Pharaoh of the Oppression, and the Exodus took place in the reign of his successor, Merneptah (1225-1215 B.C.): it is impossible to ignore Ex. i. 11, the building of Pithon and Rameses by the Israelites. The book, as a whole, is in touch with current literature; one notes, however, that in its list of literature it does not mention the histories of Kittel, Meyer or the *Cambridge Ancient History*. One misses also a map and an adequate index.

Palästina und seine Kultur in Fünf Jahrtausenden, by Prof. Dr. Peter Thomsen. (*Der Alte Orient*, Vol. 30, Leipzig, 1931.)

This is a third, revised and expanded edition of a pamphlet published in 1909 (2nd ed. 1917). It has grown into quite a book (120 pp.), and gives an entirely up-to-date survey of the history of excavation, the material, and the chief periods (Stone, Bronze, Iron, Jewish-Hellenic, Roman-Byzantine). Besides a number of plans, there are 16 plates (with 34 illustrations). Dr. Thomsen is unequalled for his knowledge of the field of Palestinian research, and his contributions to Ebert's *Wörterbuch der Vorgeschichte* have been mentioned from time to time in these pages. His is a more formal introduction to the subject, and while he points out that a really comprehensive work would fill many volumes—not

to speak of the fact that many questions are still *sub judice*—readers will find this an excellent self-contained and complete study—though again we miss a map !

Excavations in Rhodes.

It is impossible in the pages of the *Q.S.* to give any adequate notice of the sumptuous volumes published by the *Istituto Storico-Archeologico di Rodi*. Volume i., by A. Maiuri and G. Jacopich, deals with the Archæological Museum of Rhodes (wherein is a Greek-Phœnician bilingual, p. 31), important monuments in the city, and archæological work in the island of Rhodes and other islands ; the Second Part contains an account of monuments of the period of the Knights. In Vol. iii., Giulio Jacopi describes the excavations in the necropolis of Ialisso ; and in Vol. iv. the same scholar records the work done at the necropolis of Camirus in 1929-30. To him also is due Vol. v., 2, with sculptures from the Museum of Archæology. The series is profusely and splendidly illustrated, the printing excellent, and the whole does credit to the Historical-Archæological Institute of Rhodes, its eminent superintendent, and his staff.

The Journal of Egyptian Archæology, May, 1931, contains an obituary notice of the late Dr. Hall, by Mr. Hugh Last, and a brief description of some objects in the British Museum of the time of Amenophis III, which he wrote before his death. Mr. C. A. Wainwright takes up again the problem of the home of the " Keftians," mentioned and described in Egyptian records, and reconsiders his view (published in the *Liverpool Annals of Art and Archæology*, vi.), that Keftiu was in Cilicia, and that the Caphtor of the Old Testament was not Crete, but more probably some country in Asia Minor. He discusses two pieces of literary evidence for Keftian personal names and language, and, in the *Journal of Hellenic Studies*, deals with the archæological evidence for the civilization and dress of the Keftians and their relationship to the Philistines. He now finds points of contact over a large area, the names being matched not only in Cilicia and the neighbouring mountain area of Isauria, Lycaonia and Pisidia, but even in the kingdom of Urartu, which flourished in Armenia round the shores of Lake Van in the IXth—VIIth centuries B.C. This involves the argument that the rulers of Van had come from the west, and the

possibility that the great movements which led the Philistines to the coast of Palestine, perhaps left the metal-artificer Tubal-Cain in Cataonia, and founded settlements in the Vannic district. The position which, on literary grounds, Mr. Wainwright would select for the land of Keft fits in with that demanded by the archæological data, discussed in the sister article, and thus interesting possibilities are opened up of the historical background to the "Philistine" epoch in early Israelite history.

In connexion with this, attention may be called to an article on the "Keftian" language, by H. Th. Bossert, in the *Orientalistisches Literaturzeitung*, April, 1931, cols. 303-329. He discusses it in relation to the decipherment of the Cretan hieroglyphic and linear writing; and a Late Mycenaean vase from Archomenos, with an inscription which can be read as Cypriote, appears to bear the Homeric word *roia* "pomegranate," and leads to a study of the cult of the pomegranate in the ancient Near East.

In the June issue of the same, J. Scheffelowitz writes on some discoveries in a grave-yard of the Roman period in Cologne, with indications of Oriental cults (Mithras, Sabazius, etc.). On the back of a frog, the symbol of resurrection, is an inscription which he reads as Aramaic (*h-b-'r*), and rather boldly explains as meaning "noise," on the supposition that the symbol is intended to frighten away demons.

Among the many excellent reviews for which the *O.L.Z.* is always valued is one by Przeworski of Warsaw on Prof. Garstang's *The Hittite Empire* (June, cols. 534-540), with a number of useful supplementary notes and details.

The date and style of the old Hittite monuments and their archæological value, also form the subject of a long and careful article by Fr. W. Freiherr von Bissing in the *Archiv für Orientforschung*, vi, 4-5 (pp. 159-201). Many questions of date still remain obscure, *e.g.*, the well-known bas-relief of the god and royal worshipper at Ivriz—and Przeworski draws attention to another Ivriz monument (*Proc. of Soc. of Bibl. Arch.*, xxxii, 172 *sq.*)—dated by Garstang to about the Xth or IXth cent. B.C., is assigned by Von Bissing to round about 700 B.C., with a margin of one or two centuries either way.

In the same issue Mesčaninov of Leningrad writes on the new results of researches into the Khaldian or Uartian period of ancient Armenia, and W. F. Albright (now of Baltimore) on the *maryannu* chariot-warriors of Palestine and Syria in texts of the fifteenth and later centuries B.C.

The term was brought in by the barbarian irruption, which introduced the use of the horse and chariot in warfare into W. Asia and Egypt. Along with it came the word for "horse": Hebrew *sus*, ultimately derived from the Sanskrit *áswas*, later *ásvas*. The same Indo-Iranians, in the XVIIIth cent. B.C., introduced the composite bow into Egypt and the rectangular fortified camps of *terre pisée*. Albright accepts Löhr's view (*O.L.Z.*, 1928, col. 923-7) that all the supposed references to horsemen in the Bible before the IXth cent. are either due to a confusion of "chariot-horses" with "horsemen," or to a corrupt text. The "horsemen" of Solomon should be "chariot-horses," and this is confirmed by the stables, etc., found at Megiddo, Tell el-Hesi and Hazor. Cavalry was not introduced into Palestine and Syria until the IXth cent., after it had come into use in Assyria where, somewhere between 1050 and 900 B.C., the Assyrians changed from the practice of two men in a chariot to that of three. [Hrozný has recently described a Hittite work (first noticed by Forrer, *Z.D.M.G.* lxxvii., 252-269), on the training of horses, by one Kikkuli of Mitanni (North Syria), covering the training of horses, their food, drink, washing, "physic balls," etc., etc. (cited in the *Archiv für Orientforschung*, vi., 328 sq.).] Albright points out that chariots played the rôle in warfare of the Middle and Late Bronze Ages (1700-1200 B.C.) that cavalry did later. The men had the same position later held by equestrian nobles of Rome, or even more by the mediæval feudalknights. They are Indo-Iranian, and Indra "the mightiest chariot-warrior," as he is called in the Rig-Veda (dating from 1800 to 1400 B.C.), was a god of war whose cult seems to have spread into Palestine—to judge from the personal name Indaruta (Vedic Indrota) in the Amarna Age. "The Vedic hymns from the outgoing Bronze Age, still reflect the conditions prevailing in the period of the great barbarian irruption of the XVIIIth-XVIth cent. B.C., so Indra with his retinue of noble young charioteers [the Maruts, frequently called *Márya*] corresponds to a typical Mitannian prince, with his retinue of noble young charioteers." Thus it will be seen that increasing attention is being paid to the non-Semitic Indo-Iranian and old Persian factors in the early history of South-west Asia. The significance of this is to be seen in numerous directions. Thus in a recent article on the Palmyrene gods at Dura-Europos (*Journal of the American Oriental Society*, li., 119 sq.), Clark Hopkins of Yale discusses the Iranian or Parthian

elements in the remarkable frescoes found and described by Breasted (*Oriental Forerunners of Byzantine Painting*, 1924) and discussed exhaustively by Cumont (*Fouilles de Doura-Europos*, 1926). But this enquiry into non-Semitic influences so late as the 1st cent. A.D.—their probable date—cannot be divorced from the fact that repeatedly in the past this part of Mesopotamia had been exposed to Iranian and similar influences, so that from an early period the whole culture had never been what might be called “pure” Semitic. Similarly the Persian influence upon Israel in the Achæmenid period (Vth-IVth cent. B.C.) had its earlier forerunners. In other words, our Syria and Palestine of the “Mosaic Age,” and not that age alone, were in close contact with what may be called “Indo-European” elements, though, of course, it is another question whether it can be argued that their influence was neither more nor less permanent than that, say, of the European Crusaders of the Middle Ages.

Of the *Communications* of the Oriental Institute of the University of Chicago, No. 9, “New light from Armageddon,” is the second provisional report of the excavations (1927-29) by Mr. P. L. O. Guy. Among other details we note the suggestion that malaria became prevalent throughout the Near East towards the end of the fifth century B.C., and that it was then that many cities fell on evil days. Herodotus tells how the marsh-dwellers of Egypt were afflicted, and the Persians of the fourth century were moving up and down from Egypt and Phœnicia. So Mr. Guy would connect the desertion of the tells of Esdraelon (Jenin excepted) with this fact. Among his discoveries were a burial of a mother with two infants, and specimens of the “Shield of David” (p. 37)—rather rare in early times (my *Schweich Lectures*, p. 213 sq.), and 14 buildings now recognised as stables (accommodation for some 300 horses in all). Mr. Guy points out that similar stables recur—though they had not been recognised—at Tell el-Hesi and Gezer, and probably at Taanach. At Megiddo, stratum iv, to which these belonged, is “Post-Philistine,” and its buildings appear to indicate a new and scarcely Palestinian influence, one with some suggestion of North Syrian work. It may be, conjectures Mr. Guy, that the Phœnician masons employed to build Solomon’s temple were afterwards given the task of building the city of Megiddo (built or rebuilt by Solomon, see 1 Kings ix, 15), that is, the city as represented by stratum iv.

Further he suggests that Solomon's activity in collecting chariots and warriors (1 Kings x, 26-29) aroused the suspicions of Shishak and account for his invasion in the fifth year of Rehoboam. With this would agree the earlier discovery at Megiddo of the Shishak stela, certain amulets, and the burning of stratum iv. Mr. W. E. Staples follows on with a description of a fine Scaraboid inscribed "H-m-n" and bearing a locust and a griffin and the *ankh* or sign of life. The griffin closely resembles others found in Palestine, and Mr. Staples discusses its use and distribution as a *motif*. He concludes that the design is of Egyptian influence, and that the lettering (which he describes as "Phœnician") points to local manufacture, the legend H-m-n referring to the Phœnician god Hamman rather than an Egyptian deity (p. 68). Here it may be observed that in the *Zeitschrift für die Alttestamentliche Wissenschaft* (1931, pp. 1 *sqq.*), the late Ed. Meyer, denies that the Phœnician Hamman has anything to do with the "sun," or "sun-pillar," but is the stone pillar erected for purposes of cult, corresponding to the O.T. Massebah.

No. 10 of the Chicago Communications is devoted to Medinet Habu Reports. The work, described by Harold H. Nelson, is of special interest for the care taken to obtain fresh copies of Egyptian representations of the mercenaries and foreign enemies of Egypt—Libyans, Asiatics, &c. The conventions of Egyptian art are well brought out and discussed, and it is shown how much more careful are some of the representations of Palestinian and Syrian scenes compared with others. Uvo Hölscher follows with an architectural survey.

The Journal *Biblica*, issued by the Pontifical Biblical Institute of Rome contains *inter alia* a study by Hänsler of the historical background of Judg. iii, 8-10 (xi, 391-418, xii, 3-26, 271-296). The enigmatical Cushan-Rishathaim is connected with Mitanni and Tushratta (*cf.* J. W. Jack in *Expository Times*, 1923-4, pp. 426-8), and after a sketch of the historical circumstances, so far as they can be reconstructed, he points out how the failure of Egypt to help her Mitannian ally was in entire harmony with the characteristic weakness of Egypt later when Samaria or Judah in their hour of crisis, appealed for assistance. It is an interesting attempt to co-ordinate the external evidence and the Biblical narrative, but it scarcely

enables the reader to understand the part played by the semi-Edomite Othmiel. (This difficulty is clearly recognised in Garstang's new book, *Joshua, Judges*, pp. 263 *sqq.*) J. B. Frey argues, with the help of a Greek Jewish inscription, that *prōtotokos* is "only son" as well as "first born" (xi, 373-90). The inscription, published by C. C. Edgar (*Annales du Service des Antiquités de l'Égypte*, 1922, pp 7-16; cf. *Rev. Biblique*, 1923, p. 154), is the epitaph of one Arsinoë who died after the birth of her firstborn (πρωτοτόκου με τέκνον πρὸς τέλος ἤγε βίου). Mallon, who writes a note on the chronology of the Walls of Jericho (*Biblica*, xi, 472-7), also summarizes the excavations of the Institute at Teleilat Ghassul, to the north of the Dead Sea (xii, 257-70). Of special interest are the 420 fragments of pottery with unintelligible marks and signs, some with Minoan affinities, others pointing to Susa, a few are pictorial (*e.g.* a serpent), and there are some indications of numerals. Belonging as they do to the third millennium B.C. they are of the highest importance as evidence for the history of the civilisation of Palestine. The more striking is it therefore that, as Mallon remarks, "ce peuple était sur la voie de grands progrès quand il fut soudain emporté par une terrible catastrophe."

Palestinian archaeology is represented in the *Journal of the Palestinian Oriental Society* by articles on prehistoric implements (Neuville, x, 193 *sqq.*), the Baptistery of the church of Sbeita in the Negeb (Mallon, x, 227 *sqq.*), notes on the Ghôr (*id.*, xi, 55 *sqq.*), the Torah-coffers (Reifenberg, xi, 51 *sqq.*), some Jewish-Palestinian lamps (*id.*, xi, 63 *sqq.*), and the third campaign at Tel Beit Mirsim (Albright, xi, 21 *sqq.*). Folklore is represented by T. Canaan's article on Palestinian ideas of Light and Darkness (xi, 15 *sqq.*); and Mrs. Crowfoot and Miss Baldensperger, who wrote on hyssop in these pages (April, pp. 89 *sqq.*), describe the so-called "Rose of Jericho," the native "Virgin's hand" (*Anastatica hierochuntica*). The plant when closed is like a closed fist, but, when moistened, it opens like an open hand; it is soaked in water and held towards women in travail to hasten delivery (xi, 7 *sqq.*). Among the topographical articles may be mentioned one by A. Saarisalo on the Shephelah (xi, 14 *sqq.*).

In the *Zeitschrift des Deutschen Palästina-Vereins*, liii, 185 *sqq.*, M. Pieper deals with the significance of scarabs for the study of

Palestinian archæology. The Berlin Museum contains one from Palestine with the name of the Hyksos king Jacob-her, which, in spite of some objections, is to be explained as Jacob-el (also the name of a place or tribe in a list of Thutmose III.) Further, the Hyksos Smkn may still be equated with Simeon. The Hyksos king Khian (or Khayyān) has not a Semitic name, but Yaon (Yamu) seems to be Semitic, though it evades explanation. It is possible that the frequently occurring *h-r*, with a sort of palm-branch, represents the Semitic *El* "god"; and closer study of Palestinian scarabs would throw light upon the native religions. A scarab from Hebron, with apparent Egyptian writing, is, nevertheless, unintelligible as Egyptian, and it may be that it illustrates the development to Semitic writing. Pieper calls for a more intensive study of this class of objects. A. E. Mader describes remains of a Greek basilica in the el-Aksa Mosque and the Dome of the Rock (pp. 212 *sqq.*). Full bibliographical surveys are contributed by P. Thomsen (liii, 312-326, liv, 182-202), and K. Galling has an excellent "Archäologischer Jahresbericht" (liv, 80-100), with special attention to Petrie's publication of his work at Tell el-Fara (*Beth-pelet*, 1930), pointing out, at the same time, the serious difficulties caused by his dates (p. 96). To him is also due a review of Valentin Müller's *Frühe Plastik in Griechenland und Vorderasien* (p. 105 *sq.*), important because of its co-ordination of the art of the Near East with that of the west. Max Blanckenhorn, whose seventieth birthday brings a complimentary letter from Guthe (liv, 1 *sq.*), gives a useful summary of present-day knowledge of the geology of Palestine, the complexity of which increases as research advances. H. Lamer, Leipzig, proposes a fresh explanation of two graffiti of Marissa (*Z.D.P.V.* liv, 59-67). The difficult four-lined text (*Marissa*, p. 57 *sq.*) he dates to the third cent. B.C.: Calypso, a maiden, probably Greek, and of good family, has written three of the lines on different occasions, and the fourth is by her lover, who is the priest Myron named in the second graffiti (p. 60), though neither of the names may be authentic. Palestinian topography is advanced by articles by Elliger on the boundary between Ephraim and Manasseh (liii, 265-309), and by Gustav Beyer on the early territorial history of South-west Palestine (liv, 113-170). The former handles in a fresh manner one of the most complicated of topographical problems, in the course of which he identifies the old Tappuah with the modern Mahneh, and points

to the existence of certain "neutral zones" which, as he remarks, are always the best borders. "To Gezer" (Josh., xiv, 3) must be omitted as a gloss; and the arguments of Pythian-Adams (*Q.S.*, 1929, pp. 228 *sqq.*), who takes into account both the historical and the geographical data, he considers untenable (p. 308 *sq.*). Beyer first discusses the strategical significance of the list of the cities fortified by Rehoboam (2 Chron., xi, 5-10). They form a complete system, and it is noteworthy how little southwards they extend, compared with the eastern and northern lines, a fact that may be explained by the attacks made upon S. Palestine by Edomites, Cushites (2 Chron., xi, 5 *sqq.*), etc. The list answers to the time of Rehoboam (p. 130), immediately after the separation of the Northern Kingdom (whence the mention of Zorah and Aijalon) and the revolt of Edom in the south. On the other hand, the chronicler wrongly places the work of fortification before the Egyptian invasion (2 Chron. xii, 2-4). Gath probably became Judæan in the latter part of Solomon's reign; it is not Tell es-Safi, but (with Guthe and Albright) is the Tell by 'arāk el-Menshiyeh, "the most remarkable landmark in south-eastern Philistia." Lachish cannot be Tell el-Hesi, but Tell ed-Duwer (Albright), or rather Beit 'Auwa, 8-12 kil. from Beit Jibrin (p. 148) or the much older Tell 'Etûn, some 3 kil. further to the south-west (p. 149). Libnah is probably to be identified with Tell es-Safi and Ekron with Ākir.

S. A. C.

TRANSLITERATION OF HEBREW AND ARABIC CONSONANTS.

HEBREW.

HEBREW.	ENGLISH.		HEBREW.	ENGLISH.	
כ	'		ח	kh	
ב	b		ל	l	
בּ	<u>bh</u>		מ	m	
ג	g		נ	n	
גּ	<u>gh</u>		ס	s	
ד	d		ע	'	
דּ	<u>dh</u>		פ	p	
ה	h		פּ	f	
ו	v, w		צ	z	
ז	z		כּ	<u>k</u>	
ח	h		ר	r	
ט	<u>t</u>		ש	<u>sh</u>	
י	y		שׁ	s	
ק	k		שׂ	t	
			ת	<u>th</u>	

ARABIC.

ARABIC.	ENGLISH.		ARABIC.	ENGLISH.	
ا	'		ض	d	
ب	b		ط	t	
ت	t		ظ	<u>tz</u>	
ث	<u>th</u>		ع	'	
ج	g	or j in Syrian Arabic.	غ	<u>gh</u>	
ح	h		ف	f	
خ	<u>kh</u>		ك	<u>k</u>	
د	d		ق	<u>k</u>	
ذ	<u>dh</u>		ل	l	
ر	r		م	m	
ز	z		ن	n	
س	s		ه	h	
ش	sh		و	w	
ي	<u>z</u>		ي	y	

Long vowels marked thus:—ā, ē, ī, ō, ū.